

Antiquity

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Editorial Notes

A RECENT remark (which it would be unkind to quote) revealed to the writer the fact that the average Englishman is quite incapable of understanding the outlook of the average scientific research-worker. By the 'average Englishman' is meant the person usually described as 'well educated'; and by the 'average scientific research-worker' is meant the person whose main pursuit (whether amateur or professional) is the advancement of knowledge. The subject is worth considering because it is, in the writer's opinion, closely connected with the nature of intellectual activity itself. Of this there seem to be two kinds. The one is passive, receptive, and consists in absorbing knowledge which has already been assimilated by others, such as a foreign language or the parts of a machine. Memorizing plays a large part in such learning (though of course a good memory is invaluable in all intellectual work). The other form of intellectual activity is active and creative, and consists in the discovery of new facts and the fusing of facts (both new and old) into a new synthesis.



The latter activity is the mainspring of human progress, indeed it is one of the chief things which distinguishes human from animal societies. Without discovery we should never have achieved the Age of Stone or advanced beyond it. Is it then at all strange that those whose primary allegiance is given to the advancement of knowledge should find no room for other loyalties of a lower order? and is it not natural that

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they should be obsessed by an enthusiasm that can override obstructions, apathy or even ridicule? Unfortunately human society is not yet organized as such; there exist organizations devoted to the good of humanity as a whole, but they fail to achieve as much as they might because the productive forces of society are directed towards other ends. For example, it would obviously be for the good of humanity as a whole to decrease the amount of mere drudgery in industry, and it would be perfectly easy, technically, to do so; but human society is still grouped into mutually competing units, each with its own survival as the *summum bonum*, and the good of humanity as a whole is a purely secondary consideration, if it is considered at all. Nowhere, outside the unorganized ranks of scientific workers (and not always there) is this the primary governing motive of conduct.



At this stage a voice from the back seats will be heard asking, What has this got to do with archaeology? It has this to do with it—that archaeology is that branch of science which is concerned with the past activities of *man as a species* in different regions of the earth, not with the early history of certain ephemeral modern groups of human society. To take an example, if a new fossil human skull is discovered, we archaeologists are interested, even excited, to discover what new light it may throw upon the evolution of man; but the discovery itself is presented to the public as the 'oldest Londoner' or the 'oldest Sussex man'. London and Sussex mean much more to the readers of the British press than does the evolution of man, about which our educational system has little to say. But it is to the whole world, present and future (and not to the people of Sussex, London or England merely), that the archaeologist who found the skull will consciously address his report.



That does not imply that ephemeral political units may not often determine the sphere of work. Obviously the home region, whether it be village, province or kingdom, will be for many the chosen sphere, especially when that kingdom happens to be an island. Yet even so the exceptions prove that the real urge springs from a deeper source. The leading authority on English place-names is not an Englishman but a Swede. It was a German (not a Turk) who discovered Troy and

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through his excavations laid the foundations of modern methods. It was an Englishman (happily still with us) who laid bare a completely forgotten Mediterranean civilization in Crete. And it was a Frenchman who recently reconstructed the outlines of Roman Syria—practically without excavation.



This brings us to another misconception—the idea that no one can claim to be an archaeologist unless he devotes most of his time to excavation. It is a misconception that is widely held, as the present writer knows. Now no serious archaeologist would ever dream of depreciating the value of excavation, which is the chief instrument of research in his field of activities. It is one of which everyone who claims to be called a fully-fledged archaeologist must have some practical experience. But it is incorrect to imagine that it is the only one. To give a rough parallel, it would be just as erroneous to regard the general practitioner as not fully qualified because he does not spend the greater part of his time conducting operations. To say nothing of museum-work, distribution-maps or photography, there is an immense field in archaeology for mere observation and record. Much of this is quite independent of excavation. None but a pedant would claim that it is never possible to recognize as such a Roman camp or road, a long barrow or a medieval castle-mound without excavating it first; nor in fact is such a claim seriously made. Moreover, there are many monuments, such as sculptured stones and crosses, which cannot from their nature be excavated. But all these can be discovered by the trained eye, their positions plotted exactly on a map, and photographic records of their features made. This done, we may proceed to study their distribution and from it draw valuable conclusions. Or we may study their style and execution (as in the case of crosses) and learn about the art of the people who made them. Work like this *is* discovery and there is unlimited scope for it everywhere.



Here a reminder may be given of the valuable photographic survey of pre-Norman sculpture now being carried out by the British Museum. Instructions for the guidance of those wishing to cooperate have been printed in *ANTIQUITY* (1936, x, 3) and it must suffice now to give the address to which those anxious to help should write (Mr T. D. Kendrick or Dr Ernst Kitzinger, British Museum). An exhibition of

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some of the photographs already sent in was held recently at the British Museum ; and this alone was evidence in proof of the contention put forward above. Excavation, we repeat, is paramount and of central importance, but there are other branches of activity no less enthralling when once the taste is acquired.



The main subject of these Notes has been the relation between the average Englishman and the average research-worker. It was claimed that the one is generally blind to the outlook of the other. On a previous occasion it was suggested that the Universities were themselves not wholeheartedly interested in research ; and as an example the neglect of papyri and inscribed tablets was taken. Out of those remarks arose a desultory correspondence in a University magazine, followed by a private correspondence between the writer and a member of a University Press. The examples were chosen, not, as seemed to be thought, because the writer had some personal predilection for papyri or cuneiform tablets ; but because these objects (with others that could have been mentioned, such as inscriptions on stone) are unquestionably of primary importance in the reconstruction of history, particularly of economic history. The writer still stands by the opinion expressed in the major premise—that the leading Universities are not whole-heartedly interested in research ; nor is he convinced by the facts brought forward that the study of papyri and inscribed tablets is not still comparatively neglected by the University of Oxford (and elsewhere). But it seems that, in citing the example of American Universities he was misled by a personal impression. Neither here nor there does it appear to be regarded as the primary duty of the University as such to encourage research by publishing the results at its own charge. Many of the research volumes which issue from the University Presses, and which the world at large puts down to the credit of the University, are really paid for by other bodies. We do not think it is necessary to say any more.

The Early History of Writing

by S. H. HOOKE

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ON the 29th of June, 1910, at the consecration of Westminster Cathedral, a curious piece of ritual was performed called 'The Ceremony of the Alphabet', almost identical with a ceremony which had been witnessed by the London of a by-gone day at the dedication of Westminster Abbey in 1065. *The Times* of 29 June 1910 described the ceremony as follows:

'On the floor of the spacious nave, from the main entrance to the sanctuary, were painted in white two broad paths, which connected the corners diagonally opposite, and intersecting at the centre of the nave formed a huge figure x, or St. Andrew's Cross. Where the lines converged was placed a faldstool; and here the Archbishop, still in cope and mitre, knelt in prayer, while the choir continued to sing the ancient plainsong of the "Sarum Antiphoner" . . . Meanwhile attendants were engaged in strewing the nave with ashes. This meant the laying of small heaps of the ashes, about two yards apart, along the lines of the St. Andrew's Cross. Beside each heap of ashes was placed a piece of cardboard containing a letter of the alphabet—the Greek on one line and the Latin on the other. The Archbishop then went towards the main entrance, attended by the deacon and sub-deacon, and preceded by the Crucifix carried between lighted candles. Starting first from the left-hand corner Dr Bourne advanced along one path of the St. Andrew's Cross, tracing with the end of his pastoral staff the letters of the Greek alphabet on the heaps of ashes; and returning again to the main entrance repeated the process on the other path, tracing this time on the heaps of ashes the letters of the Latin alphabet. This curious ceremony is variously interpreted as symbolizing the union of the Western and Eastern Churches, or the teaching of the rudiments of Christianity, and as a survival of the Roman augurs in laying their plans for the construction of a temple, or as the procedure of Roman surveyors in valuing land for fiscal purposes'.

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The ceremony is a reminder that behind all the symbolism of the many religions of the world lies that most ancient and most potent symbol, the symbol of the spoken word. This paper attempts to deal briefly with some aspects of the early history of writing, that most significant of all human inventions which first gave permanence to the achievements of civilization.

We are still a long way from being in a position to make a comparative survey of all the early forms of writing known to archaeology. The Minoan linear and pictographic scripts have not yet yielded up their secret ; the proto-Elamite script is still undeciphered ; and although astonishing progress has been made with the various scripts which come under the designation of Hittite, it is too soon yet to make a comparative study of the relation of these scripts to the early Egyptian and Sumerian scripts. There is also the new problem of the early Indian script awaiting solution. Hence in this paper we shall limit our enquiry to the beginnings of writing in Egypt and Sumer, with special reference to the new material which has been made available by the publication of Falkenstein's *Archaische Texte aus Uruk* (Harrassowitz, Leipzig, 1936).

The late Sir Grafton Elliot Smith's researches in the development of the brain have shown that the most significant step in the process by which man emerged from the level of the lower animals was the acquirement, by the visual area of the cortex, of a predominance over the areas connected with smell and the other senses. The natural correlate of this increased significance of visual experience was the development of intelligible speech as the most convenient means of communicating experience. At the same time the co-ordination of visual and motor mechanisms which brought man's hand under the control of his eye with a delicacy of adjustment possessed by no other animal made possible another method of recording visual experience. Man developed the power, not only of describing the world of sense-experience by intelligible sound-symbols, but also of portraying it in pictorial form. In the caves of Altamira and Cogul and in many other places are still to be seen fresh and vivid paintings and drawings which show that prehistoric man had developed a very high degree of skill in the representation of those animals which constituted his food-supply. There is a general agreement among anthropologists that the motive for these drawings and paintings was not pleasure but desire. The fact that many of the drawings either mark the vital spot of the animal with red, or represent the animal as pierced with a weapon, suggests that the drawings had a magical purpose. They were intended to secure good hunting.

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It is this power of pictorial representation which seems to provide the first step in the process which led to the invention of writing. There seems to be little doubt that the earliest elements of written speech both in the Nile Valley and in Mesopotamia were pictures of recognizable objects. But a possible alternative source for the beginnings of writing must be noticed. In his book *The Formation of the Alphabet*, Sir Flinders Petrie has collected a body of linear signs or marks on pottery, with regard to which he says : ' Further, the body of signs belongs to the early age, when drawing was of the rudest, and only mechanical abilities were developed in the art. Hence from the psychological point of view it is impossible to presuppose a pictorial source for them. They start at an age when rude marks satisfy the mind by symbolizing the intended meaning, and long before more exact copies of forms were thought needful '. It is a little difficult, in view of the archaeological evidence, to accept the suggestion that linear signs arise in a stage of culture when the power of pictorial representation is still rudimentary. The earliest appearance of anything resembling linear signs occurs in the painted pebbles of Mas d'Azil. But whether these may have been a linear script or not, they are certainly contemporaneous with a highly developed power of pictorial representation both in the flat and in the round.

It seems hardly open to doubt that, given a motive of sufficient interest, prehistoric man, long before the signaries under discussion could have come into existence, was capable of producing pictorial representations of the highest degree of skill.

It is also clear that in the early history of writing a process of detrition, so to speak, may be observed, by which pictures of objects were reduced to groups of linear signs bearing no resemblance to the original pictures. Hence, if Sir Flinders Petrie's theory is well founded, we should have, for Egypt at least, a double line of possible development, as the following words from his book already mentioned suggest : ' It is more likely than not that the mental attitude of thinking of signs phonetically occurred in the same age to the Egyptian with his pictorial hieroglyphs, and also to the dweller in Egypt—whoever he may have been—who used the linear signs '.

It does not seem possible at present to find any certain connexions between the main line of development of writing as seen in the Egyptian hieroglyphic system, and the linear signs referred to. We cannot tell whether they were true phonetic signs or merely marks of ownership. Perhaps when further light on the history of the so-called Sinaitic

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script is forthcoming they may be found to have had a part in the origination of this system of writing.

One more point of connexion between prehistoric art and early picture-writing may be mentioned. In the prehistoric cave-drawings there is a curious difference between the drawings of animals and the representations of human figures. The drawing of the latter is rudimentary and often resembles the rudimentary human figures on the early decorated Egyptian pottery. The drawing of the animals shows that it was not due to any lack of skill that the human figure was so crudely depicted. It seems rather to point to the earliest stage of symbolization, the reduction of the pictorial representation to its simplest terms. An alternative explanation may be found in the fear of maleficent magic.






We have then clear evidence of the very early development of pictorial representation and of its early conventionalization. The general analogy of picture-writing among savage peoples points to pictorial representation as the earliest and simplest method of communicating ideas. We have also abundant evidence for the existence of a pictographic system of writing in use among the early Egyptians and the Sumerians. Hence we shall now go on to examine these early forms of writing to find out what light they throw upon the beginnings of the representation of sounds by visual symbols.

The moment in Egyptian history when we can observe the first emergence of writing as distinct from pictorial representation coincides with the beginnings of the united monarchy in Egypt. It is on the famous slate-palette of a king that, in the words of Dr Alan H. Gardiner,¹ 'we are able to observe the birth of hieroglyphics taking place, as it were, under our very eyes'. The king, whose Horus-name is usually read as Narmer, was possibly the second king of the First Dynasty of the Old Kingdom. His palette, like so many other pictorial representations of the Pharaohs, celebrates the military achievements of the monarch. The greater part of the palette (PLATE I) is occupied with a vigorous representation of Narmer in the act of striking down a vanquished enemy with his mace. There are seven hieroglyphs in different positions on the palette; two of them at the top form the Horus-name of the king, while five others whose phonetic equivalents are uncertain serve as labels to the different figures grouped round the king. But the group of particular interest is the one occupying the

¹ *Journal of Egyptian Archaeology*, 1915, II, 72.

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right-hand top corner of the palette. The following is Dr Alan Gardiner's description² of it :

' The group in the right-hand top corner is of a much more puzzling character ; an ordinary, simple picture . . . it is not. There is nothing, indeed, unpictorial about the representation of the god Horus under the image of a falcon, but the human hand by which he grasps a rope introduces an element of symbolism which is alien to purely pictorial art. This symbolical note is still further emphasized by the bodiless head of a foreigner growing out of a cylindrical object ; but we have not much trouble in concluding that the foreigner is a prisoner, and that the cylindrical object is meant to indicate his land. The six stalks with flowers, on the contrary, would altogether elude our comprehension, were it not that their signification is at once apparent to anyone with a slight knowledge of hieroglyphics ; the veriest beginner could hardly fail to recognize in them the common word , *kho' (h')*, meaning " a thousand ". Now there is nothing in the outward appearance of  to suggest the signification " thousand ", and the existence of a word  *h'*, for a water-plant or some such botanical object makes it obvious that this is a typical case of phonetic transference ;  means a " thousand " simply because the plant it depicts was called in Egyptian by a name closely resembling the Egyptian word for " thousand ". The six-fold  on the palette therefore signifies " six thousand ", and the sense of the whole complex group in which it occurs may be thus defined : " Horus brings to the Pharaoh six thousand foreigners captured within their land ".

' The *ensemble* which centres around the falcon-shaped Horus is supplementary, therefore, to the larger figures below it on the left, and serves to explain the circumstances under which the Pharaoh is enabled to immolate his foes. It would be wide of the mark, nevertheless, to describe this *ensemble* as an early example of writing ; its size and importance prohibit that view, and moreover no particular order of words is suggested, nor yet any specific word except *kho'*, " thousand ". On the other hand it cannot properly be ranked as a picture, since its method of expression is not that of imitative pictorial art, and since it incorporates one undeniable phonetic sign. It occupies a place, in fact, intermediate between picture and writing ; it is neither the one nor the other, but possesses something in common with both. Now what to all intents and purposes is exactly the same subject is represented in magnificent sculptured relief on the walls of the funerary temple of Sahurē, where two rows of divinities are shown leading before the king two rows of prisoners with ropes tied to their arms and waists. But this sculptured scene is not complete in itself ; its meaning is eked out by three lines of hieroglyphic inscription, of which the most relevant line reads as follows : " *Words recited : we have given to thee all the western and the eastern deserts, together with all the nomads and all the Beduin who are in every desert* ". Here we have the last step in the development towards which the group on the palette of Narmer unmistakably points : the differentiation of two complementary forms of expression, the one definitely

² *Journal of Egyptian Archaeology*, 1915, II, 72.

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pictorial, and the other definitely writing. The combination of hieroglyphic inscriptions and pictorial representations is extremely frequent on Egyptian monuments, and is accounted for by the common origin of both and by the fact that they have not yet drifted so far apart as to be incompatible side by side with one another. Hieroglyphic writing is, after all, merely a sequence of small pictures with special meanings attached to them ; and, on the other hand, Egyptian pictorial art shows analogies with the methods of writing which are both striking and significant'.

Here, then, we find the point at which the symbolic expression of ideas, which is writing, begins to diverge from the realistic representation of persons, things and actions.

It is important to note that this vitally significant advance is directly connected with a stage of social development. At a certain level of social progress there is not sufficient motive present to give rise to so complicated a social mechanism as written speech. It is possible, as we can see from a survey of present-day savage societies, for a language to reach a high degree of flexibility and a large vocabulary without any development of writing. But among the ancient Egyptians at the beginning of the Old Kingdom period certain elements in the social situation combined to produce a need which only the invention of writing could satisfy. We have already seen that in the first place the art of pictorial representation arose out of a need, the need of exercising a magical control over the food supply. Early in the Old Kingdom a new and urgent social motive appeared. The disposal of the dead assumed an importance which it has never possessed in any other civilization. The elaborate system of mummification began to develop, and among the many arts which it carried in its train the art of pictorial representation, with a magical significance, became an essential element of funerary ritual. The primary object of inscribing or writing down the words of the spells and incantations which formed part of the ritual of mummification was similarly a magical one. Preserved in the tomb, or about the person of the dead, the written word perpetuated the efficacy of the spoken word. Furthermore, these funerary beliefs and practices centred in the person of the king, and the achievement of a united monarchy produced a social situation of which the invention of writing was the natural outcome. The palette of Narmer shows that the need was arising of a written record to supplement the pictorial representation of the king's exploits, and it is also possible that even here the magical value of the pictured scene and the written word had a place. On the reverse of the palette a scene is depicted in which a bull is goring a fallen enemy, and in the first book of Kings there is an interesting account of the way in which the leader

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of the court prophets assumes a bull-mask and dramatically enacts in a similar fashion the coming victory of the Israelite king over the Syrians. He is engaged in making victory, not merely in predicting it. It is extremely probable that the palette of Narmer served not only as a record of victory achieved but also as a magical means of securing it.

Hence it may be suggested that among the Egyptians the invention or the emergence of the hieroglyphic system of writing is simply the extension of already existing cultural elements to a new social situation. This must be borne in mind when the question of the independent invention of writing in various parts of the ancient world is raised. The earliest texts from Sumer would appear to have no such character as that presented by such a document as the palette of Narmer. While they are connected with a temple and presuppose the organization of a small city-state, they are simply business memoranda, accounts, lists of cattle or articles of trade, of only temporary significance. Some of them, as Falkenstein points out, seem to have been bored through as a kind of cancellation. This would suggest that writing in early Sumerian culture had a more secular and utilitarian motive for its invention. The question of any possible relation between the Egyptian and Sumerian systems of writing will be dealt with later.

Before we go on to speak of the stages of development which appear in the early history of writing in the ancient East it is necessary to give a brief account of the beginning of writing in Sumer for which the archaic texts from Uruk (Erech) give us the material. It has long been known that the cuneiform script characteristic of Mesopotamia, whence it spread over large areas of the ancient East, was originally pictorial. Speaking of the well-known tablet from Kish in the Ashmolean Museum Mr C. J. Gadd says : ' The limestone ' Pictographic Tablet ' from Kish must be regarded for the present as representing the archetype of all Sumerian writing ' . (PLATES II and III). On this tablet are a number of signs representing objects, the human head, hand, foot and membrum virile, a hut with a man squatting in it, a sledge, and other signs not clearly determined. Very early tablets from Jemdet Nasr and Fara showed later stages of development in which the pictorial signs were in process of transformation into groups of wedges bearing little or no resemblance to the original forms. But the material from Uruk, consisting mainly of small clay tablets from layer ivb, in the judgment of competent authorities, takes us back to the earliest stage of writing in Sumer so far discovered. With the exception of the numerical signs all the signs on these tablets are pictographic, that is, they are

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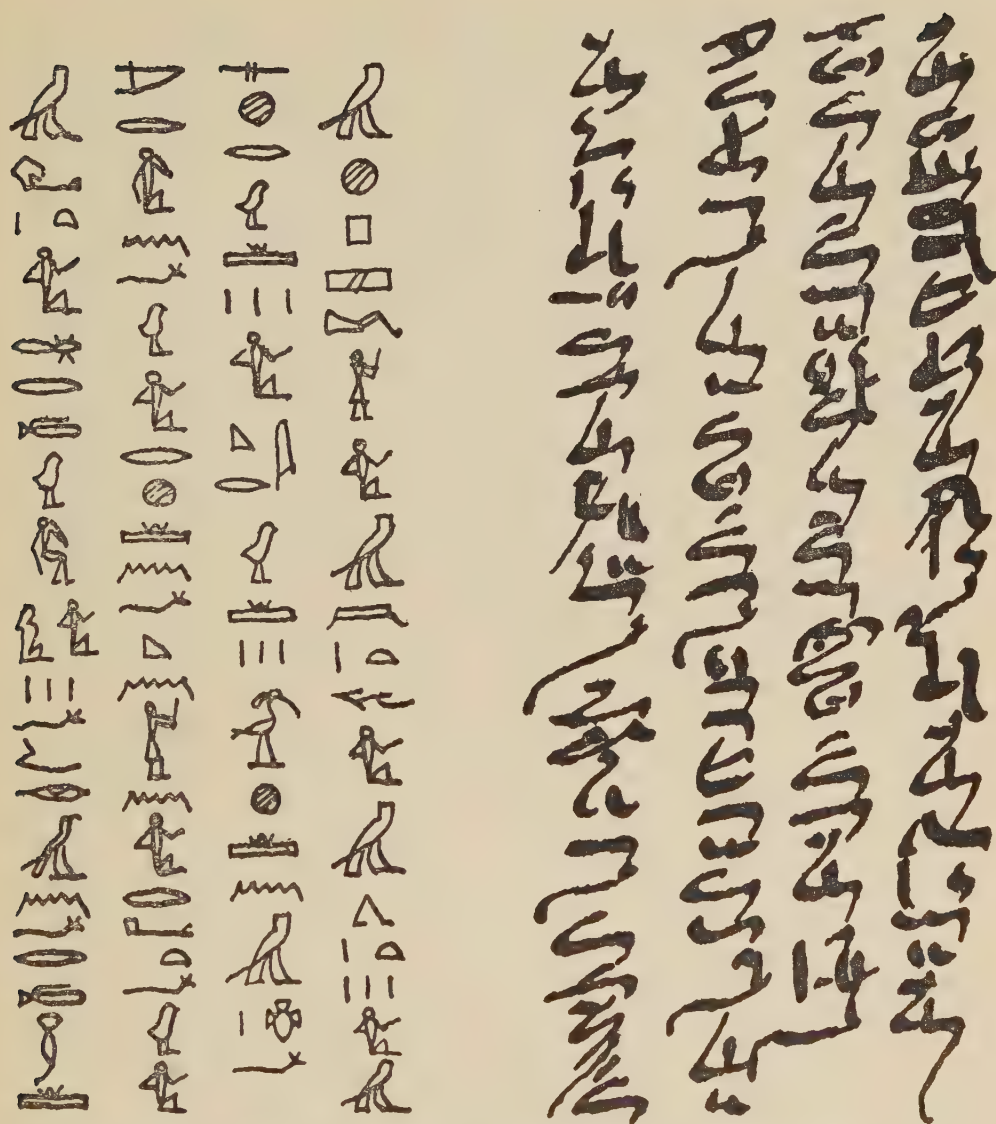
representations of objects mostly recognizable, such as parts of the human body, heads of animals, birds, fishes, various kinds of plants, vessels, boats, tools, weapons, buildings, and so forth (PLATE IV). Many of the signs can be identified with later cuneiform equivalents. The writing is, however, too well-developed for us to be able to regard the Uruk material as representing the earliest stage of writing in Mesopotamia. No small period of time must have been necessary for the writing to have reached the form in which it appears on these tablets. It is true that Dr Falkenstein considers them as the earliest written documents (cf. ANTIQUITY, x, 137), but other competent authorities, such as Mr Sidney Smith and Mr Gadd, consider that earlier stages of writing must lie behind the ivb tablets from Uruk.

If we accept the date assigned to layer I at Uruk, namely, the period of Ur-Nanše, about \pm 3000 B.C., and allow about 500 years for the development from ivb to I, we get a date early in the 4th millennium, and possibly earlier than the palette of Narmer.

Hence, both in Egypt and in Sumer, we find a well-developed pictographic writing in use about the beginning of the 4th millennium, and in the light of our present knowledge it is possible to say that in both countries the development of writing follows a very similar course. We must now attempt a brief description of the stages of this development.

As soon as the need for the representation of continuous discourse arises it becomes evident that a number of the vital elements of speech are not capable of pictorial representation. Hence it becomes necessary to invent symbols to represent the sounds denoting pronouns, prepositions, adverbs, inflexions, and all such elements of speech as have no natural pictorial associations.


There are two ways in which this may be done. One such way is illustrated by Pitman's system of shorthand writing where we find an arbitrary allocation of linear signs to sounds; speed combined with ease of reading is here the only consideration. The system is arbitrary in the sense that it is not the result of a natural development of the relation between the signs and the sounds. We have already referred to the theory that the earliest script in Egypt was of this nature, an arbitrary selection of linear signs which never, so far as we know, had any pictorial value. It may be added that there is no evidence for the existence of such a form of script in Mesopotamia. But we do know with certainty that the various forms of script in use in Egypt, down to the purely cursive demotic, all go back to the hieroglyphic system



EXTRACT FROM THE STORY OF SINUHE, IN HIEROGLYPHIC AND IN HIERATIC SCRIPT
 (after Bonnet, *Ägyptisches Schrifttum*, Leipzig, 1919)

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(see reproduction of scripts, page 269). All writing in Egypt, until the intrusion of the Greek alphabet, is of one origin. Here we have the second way in which a script may arise, namely, by the extension and adaptation of the pictorial principle to the need of expressing non-pictorial elements of speech.

We find, then, that both in Egypt and in Sumer the picture constitutes the first element of the script, and in different ways remains an essential part of the system of writing in both countries. That is to say that both in Egyptian and Sumerian a large number of signs retain the function which they had as pictures; their primary function is to indicate an object, while their secondary function is to indicate the sound or word which denotes that object in speech. Hence the pictorial origin of writing has left its mark on both the hieroglyphic and cuneiform systems in the form of a large body of signs which are known as *ideograms*, although the term is not entirely satisfactory. It is perhaps simpler to speak of such signs as *word-signs*. For instance, in Egyptian, the ideogram or word-sign for 'house' is the sign , which represents the word *pr*, and is the picture of the groundplan of a house. In Sumerian the word *sag*, 'head', is denoted by the picture of a man's head (cf. PLATES II and IV).

Now it is obvious that ideograms or word-signs alone are incapable of fulfilling the necessary functions of a system of writing, namely, the representation in visible form of intelligible discourse, the movement of thought. For instance, in such a simple sentence as 'this is the king's house', the juxtaposition of the picture signs for 'house' and 'king' would fail to yield that meaning unambiguously, and might be read in several ways. The history of writing, both in Sumer and in Egypt, shows that the solution of this difficulty was sought along two lines. The first was to increase the detail of the picture-sign, to make the picture do more work. Thus in the hieroglyphic system the basic picture of a man is used in many ways. The sign list in Dr Alan Gardiner's *Egyptian Grammar* gives no less than 53 signs representing a man in different states or activities. The Sumerian scribes devised the plan of marking the picture-sign to show some modification of its original meaning. Thus by drawing lines under the chin of the picture of a man's head it was indicated that only the mouth was referred to, and the sign *sag* was transformed into the sign *ka*. The result of such a tendency was inevitably a great increase in the number of pictorial signs employed. The sign list in Dr Gardiner's *Grammar*, representing Middle Egyptian usage, contains 732 signs, while the

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number of signs employed in the period represented by the early documents from Uruk is estimated at 2000. Apart from the cumbrous nature of such a system its limitations are obvious. No increase in detail could adequately represent all the possible extensions of meaning implicit in a picture-sign, nor could it ever succeed in denoting all the relations of the words in a sentence.

The alternative solution, which was to mark out the ultimate line of development for writing, was to make the picture-signs represent sounds without regard to their meaning. This process was possibly suggested, at the outset, by the existence in both Egyptian and Sumerian of homonyms, that is, of words with the same sound but of different meanings. According to Dr Falkenstein the earliest example of this method of extending the range of the pictorial signs comes from the Jemdet Nasr tablets and is the name *en-lil-ti*, meaning 'Enlil causes to live'. The word-sign *ti* is the picture of an arrow, according to Dr Falkenstein, and is the Sumerian word for that object. In the proper name referred to, the pictorial sign for an arrow has been transferred to the Sumerian word of the same sound meaning 'life', a word which it would be very difficult to represent pictorially. Similarly, in Egyptian we find the familiar sign for the scarabaeus (*hpr*) transferred to the homonym *hpr* meaning 'to be, to exist'.

While this device increases the range of expression of the pictorial signs it also increases their ambiguity, and its use is limited by the comparatively small number of homonyms.

But this use of homonyms to increase the range of utility of a single sign, pointed the way to the main line of development along which early writing was destined to progress, namely, the divorce of sound from meaning. The fact that the Sumerian vocabulary was mainly monosyllabic aided the process, and early in the 3rd millennium we find three well-developed tendencies :

- I the use of the same word-sign for words similar in sound but not in meaning, and the closely related development of syllabic signs.
- II the introduction of what are called Determinatives.
- III the arrangement of the signs within a compartment of a tablet in the order in which the words would have been read or spoken.

The effect of the development of syllabic signs is seen in the progressive reduction of the number of signs in current use. The 2000 signs in use in the period of Uruk ivb have dwindled to 800 in

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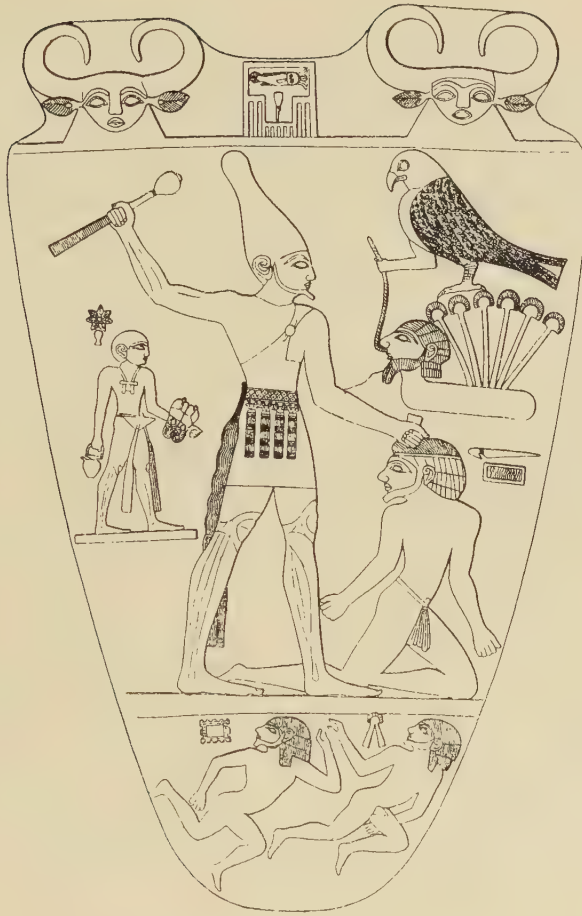
the period of the Fara texts, while by the time of Urukagina (c. 2900 B.C.) another 200 signs in use in the Fara texts have disappeared. A striking example of this process is afforded by the story of the sign for UDU, the Sumerian word for 'sheep'. It has already been pointed out that these early tablets are mainly temple documents, lists of offerings and so forth, hence it is not surprising that the sign for 'sheep' should be of frequent occurrence. Now in the material from layer IVb there are no less than 31 variations of the sign UDU, corresponding no doubt to the many varieties of sheep and goats used in the temple for ritual purposes. But in layer III only 3 signs for 'sheep' remain, and in layer I there are only 2 left. Here as Falkenstein remarks there has evidently been a deliberate rejection of an almost unlimited tendency to differentiation.

The use of Determinatives is a device intended to remove ambiguities, and appears at an early stage in the development of both the Sumerian and Egyptian systems of writing. It consists in the use of certain signs denoting classes of persons or things, such signs being placed before or after the sign to be determined. Probably the earliest of such signs is the sign for DINGIR, god, which is prefixed to the names of the gods. The sign GIŠ, wood, is placed before the names of things made wholly or partly of wood. Thus the word-sign for 'plough', originally the picture of a plough, and capable of meaning either a plough or a ploughman, by the use of determinative signs can have its meaning limited or determined. With the sign GIŠ prefixed it means a plough, but with the sign LU, man, prefixed, it can only mean a ploughman. Two other very common determinatives are the signs KUR and KI, used respectively to mark the names of countries and cities, KUR coming before the sign which it determines, and KI after its sign. The traditional rules governing the use and position of the determinatives seem to have been established at a very early date.

The development of syllabic signs made it possible to express in writing those grammatical elements of speech, such as case endings, pronominal affixes and suffixes, prepositions, adverbs and conjunctions, which by their nature cannot be expressed pictorially. As far as our knowledge goes at present, the first of the syllabic signs to be used in this way was the plural sign.

Another important use of the syllabic signs as an aid towards clearness of meaning is their use as 'phonetic complements', a use found at an early date in both the Egyptian and the Sumerian systems. This can best be explained by an example.

PLATE I



THE PALETTE OF NARMER (see p. 261)
from *Journal of Egyptian Archaeology*, 1915, II, 73

PLATE II



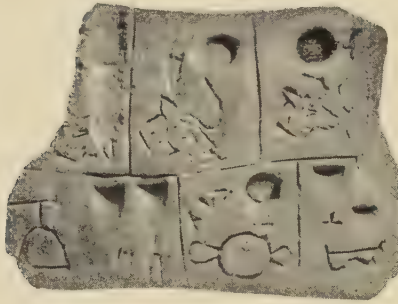
PICTORIAL TABLET FROM KISH, OBTVERSE (see p. 267)
from a cast

PLATE III



PICTORIAL TABLET FROM KISH, REVERSE (see p. 267)
from a cast

PLATE IV



PICTORIAL TABLETS FROM URUK, IV b (*see* p. 270)
State Museum, Berlin

PLATE V



PICTORIAL TABLET FROM URUK, SHOWING THE BEGINNING OF THE USE OF
COLUMNS AND COMPARTMENTS (see p. 273)

State Museum, Berlin

PLATE VI



(a) AN EGYPTIAN OFFICIAL WITH WRITING IMPLEMENTS



(b) EGYPTIAN SCRIBES AT WORK, SAKKHARA
(after Bonnet)



AN ASSYRIAN SCRIBE WITH STYLUS AND TABLET, SENNAKIRI RIM, K. 1.1.1.1. F.
British Museum

THE EARLY HISTORY OF WRITING

One of the ambiguities which had to be dealt with by the people who shaped the Sumerian system of writing was the fact that many of the Sumerian word-signs were polyphons, that is, they had more than one phonetic value, carrying more than one meaning. This difficulty arose from the pictorial origin of the script. For example, the sign *DU*, whose original pictorial form was the human foot, might stand for the various activities connected with the use of the feet, and the words describing such activities would naturally have different phonetic values. Thus the sign *DU* came to stand for the words *gin*, to go, *gub*, to stand, and *tum*, to bring. By writing the syllabic signs *-na*, *-ba*, and *-ma*, respectively, after the sign *DU*, the scribe indicated which value was to be given to it. Thus the sign *DU* with the syllabic sign *na* written after it would be read *gin-a*, going, and similarly with the other words named.

The third tendency mentioned above, namely the arrangement of the signs within a compartment of a tablet in their proper, that is, their spoken order, completed the early stage of the internal development of Sumerian writing. On the earliest tablets there are no compartments marked, and the few signs which such tablets contain are arranged quite arbitrarily. When compartments begin to appear the signs which they contain show no traces of arrangement. This is no doubt due to the fact that these early documents were simply memoranda of merely temporary importance relating to temple business. They were quite intelligible to the people who wrote them, but were not intended to have any permanent value. When however it became a matter of interest to the rulers of cities like Lagash, for instance, to preserve records of their achievements, such a rough and ready way of making occasional notes gave place to an orderly arrangement of the signs in successive lines within the compartments of the tablet (PLATE V). This process seems to have been complete by the time of Eannatum (c. 3000).

Hence, by the end of the 4th millennium, the Sumerian system of writing consisted of a syllabary, or sign-list, containing about 500-600 signs. About 100 of these were phonetic signs representing the vowels *a*, *e*, *i*, *o*, and *u*, and the various combinations of these vowels with the consonantal sounds used by the Sumerians, but, unlike the Egyptians, the Sumerians had not devised any method of representing simple consonantal sounds, that is, they had not reached, nor did they ever reach, the final stage in the development of writing, the creation of an alphabet. It is interesting to observe that although the Egyptians had, at a very early date, discovered the alphabetic principle of writing,

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they never went on to take the logical step of discarding the cumbersome machinery of ideograms, determinatives, and phonetic complements, but to the end of their civilization continued to use the alphabetic method of writing simply as an adjunct to the rest of their ancient traditional system.

The history of the alphabet, however, is another story which would require much more space than we have at our disposal.

So far we have been concerned entirely with the internal development of the Sumerian system of writing. But there are various important changes in the external appearance of the script of which a brief account must be given.

We have already seen that the earliest form of the signs used both by the Sumerians and the Egyptians was completely pictorial, but the external development of the signs as we watch it from the early tablets of Uruk up to the elegant script of the Assyrian scribes follows in Mesopotamia an entirely different course from that which it took in Egypt. This is mainly due to the fact that while in Egypt from very early times the papyrus reed furnished an inexhaustible supply of excellent writing material, the only generally available writing material in Mesopotamia was clay.

The early tablets from Uruk show that the signs were drawn on the clay in strokes of uniform thickness with a reed stylus. Falkenstein remarks with reference to the stylus, 'judging from the fineness of the lines in some of the tablets, an almost knife-sharp reed must have been used'. But it must have been a slow and difficult business to draw curved lines on wet clay, and by the time we reach the period of the Fara tablets the scribes had begun to cut the ends of their reed pens in a fairly wide-angled wedge, and instead of drawing their pictures in lines, curved or straight, they were beginning to make them by pressing the wedge-shaped end of the stylus into the clay and forming the required design by means of a group of wedges of different sizes and thickness.

The process is best illustrated by observing the change which has taken place in such a characteristic sign as SAG, representing the head of a man. In Uruk IVb the head is fully drawn, with eye, nose and mouth; in Uruk III and in Jemdet Nasr it is still drawn, but in a greatly simplified form; in Fara we find a design composed of a group of seven wedges, in which it would be hard to recognize anything resembling a human head; finally we have the sign in the compact form which it received from the Assyrian scribes (FIG. 1). It is from the appearance

THE EARLY HISTORY OF WRITING

which the script presents in this stage of its development that it has received its name 'cuneiform', (Latin, *cuneus*, a wedge).

But there is another curious phenomenon to be noticed in the external development of the Sumerian script. It may be seen in the story of the sign SAG, mentioned above. When we first meet the sign, as for example on the Kish tablet (PLATE II), the sign is drawn in its normal position, *i.e.*, with the head upright, and facing to the right. But when we come to layer III, or Jemdet Nasr, the sign appears lying on its back, with the face pointing upward, and we see that all the other signs have suffered the same change. The reason for this curious change seems to be that the early tablets which were small enough to be held comfortably in the palm of the hand, were held by the scribe in the left hand at an angle of about 45° , and the signs were written on the tablet as if it were horizontal. With an increase in the size of the tablets

SAG *development of the sign from 3500-700 B.C.*



FIG. 1

this position became inconvenient and the tablet was turned in a counter-clockwise direction till it was perpendicular. But as the turn was only one of 45° the signs were written in the same way as before, and hence, when the tablet was read in the perpendicular position, the signs would appear to be lying in a horizontal position face upward (FIG. 2). By the time the change took place, possibly after the period of the Fara tablets, the form of the signs had so far departed from their original pictorial character that they were no longer felt to be in an unnatural position.

This explanation is supported by the fact that in the case of inscriptions on monuments of stone or metal, where such a change of position was not practicable, the old position of the signs persisted. For example, on the stele of Hammurabi, the signs are engraved in the old position. Shortly after this date, *i.e.*, about 2000 B.C., the practice in the case of monumental inscriptions came into line with that which had already long been in operation in the case of clay tablets.

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Another important fact in connexion with the history of the Sumerian system of writing calls for notice. It is that as the result of the Semitic conquest of Mesopotamia, the Sumerian script was taken over by the invaders and adapted to the writing of a language whose sounds and vocabulary were totally different from the language which the script was invented to express. While this change had no effect on the nature of the script itself, it had very disturbing effects on the use of the script, since to the values which any Sumerian sign possessed, as a word-sign or a syllabic sign, there were now added Semitic values

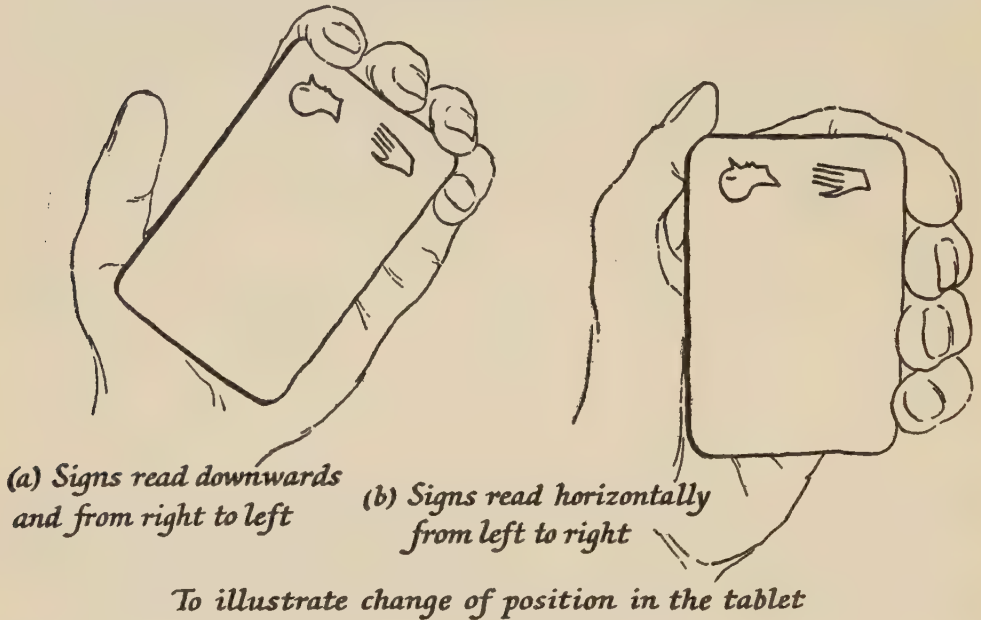


FIG. 2

as well. Moreover, Sumerian continued to be used as the language of religion, for ritual purposes, much as Latin survived through the Middle Ages as the language of the Mass. Hence it had to be studied by the priests, and the large number of lexical and bi-lingual tablets discovered by excavators shows that the difficulties which these ancient texts present to the modern scholar also existed in some measure for the Babylonian and Assyrian scribes.

But in spite of these difficulties the cuneiform script acquired a place in the ancient Near East which its most important rival, the

THE EARLY HISTORY OF WRITING

Egyptian hieroglyphic script, never attained. The Tell el-Amarna Letters show that the cuneiform script was used as the medium of diplomatic intercourse between Egyptian pharaohs, Hittite kings, Mitannite princes, and Canaanite chiefs in the middle of the 2nd millennium B.C. It was used at an earlier date as a means of writing the Hittite, Hurrian, and other kindred dialects, languages which were totally different from either Sumerian or Akkadian. It was used as late as the time of Darius Hystaspis to inscribe in Susian on the Rock of Behistun the record of the victories of the Great King, and continued to be used on tablets down to the end of the pre-Christian era. This is a remarkable practical achievement for a system of writing which had never reached the final stage of development in which all the simple sounds, the vowels and consonants, used by any speech, are each represented by a separate sign, that is to say, the purely alphabetic stage of writing.

As we have already said, there is not space here to tell the story of the alphabet, but this much may be said in conclusion. By the middle of the 2nd millennium the need felt by traders and merchants of the Mediterranean seaboard for a script that was simpler to read and easier to write had led to several experiments in the direction of an alphabet, but various causes combined to give the script commonly known as the Phœnician script, the earliest example of which as far as we know at present comes from Byblos³ in the 14th century B.C., the pre-eminence over its rivals, and this form of writing ultimately ousted all others in the Near East and in the East, and became the ancestor of all our western alphabets.

³ The reference is of course to the well-known inscription on the sarcophagus of Abiram, King of Tyre, recognized as the earliest example of the so-called 'Phœnician' script, and has nothing to do with the undeciphered inscription referred to by Dr. Alan Gardiner in his letter to *The Times* of 16 July 1937, reprinted page 359 of this number*.—S.H.H.

* A letter by Professor T. H. Gaster on the inscription was printed in *The Times* of 30 July.—EDITOR.

The Horn of Ulph

by T. D. KENDRICK

THE Horn of Ulph is one of the principal treasures of York Minster. It is exhibited in the Chapter House, and is well-known to visitors ; but in spite of its fame this celebrated antiquity cannot be studied quickly and conveniently away from the Minster,¹ and the Dean of York has therefore rendered an important service to scholars by allowing Mr C. J. P. Cave to take the fine photographs reproduced here (PLATES I-V).

The horn is one of the so-called ' oliphants ', *i.e.* horns made from tusks of elephant-ivory, and it is a particularly noble example, being both large and handsome, with a maximum length of 2 feet 4 inches and a mouth 5 inches in diameter. The ivory has coloured to a warm orange brown with rich cloudings and gradations in tone, the sunken fields in the carved zones having darkened almost to black ; but though it is thus venerable in appearance, the horn is excellently preserved, and the unimpaired lustrous gleam of the figures in relief and of the unornamented surface does much to enhance the mellow beauty of this magnificent piece. The shaft is faceted on the top and bottom with a gentle ribbing, as soft as the ' bone ' of a good Malacca cane ; but the flanks are rounded, and the section near the mouth is a natural oval. The metal fittings are silver-work of the 17th century, and consist of a plain rim and two inscribed bands to which are fastened the ends of the chain. The Latin inscription on the mounts states that the horn, having been given [to the Minster] by Ulph, a chieftain of western Deira, with all his lands, was subsequently lost or stolen, and afterwards restored and re-mounted by Henry Lord Fairfax in 1675.

The carving, which has a relief of $\frac{1}{8}$ — $\frac{1}{16}$ inch, is confined to zones at the mouth and near the point of the horn. The first, which is 3 inches wide and has a scalloped upper edge that is almost concealed by the metal rim, contains a bold parade of animal-subjects against a

¹ For early publications, illustrated by drawings, see *Vetusta Monumenta* I (1747), pl. 2 ; *Archaeological Journal* (1869), xxvi, 1 ; *Journal Brit. Arch. Association* (1892), XLVIII, 251. In recent years an admirable account has been written by Mr C. G. E. Bunt, illustrated by Miss H. L. Hodgson. It was published in York (Report of the Friends of York Minster, 1935), and is obtainable at the Minster in pamphlet form.

PLATE I



THE HORN OF ULPH (length 2 feet 4 inches)
Plates I-V, *ph.* C. J. P. Cave

THE HORN OF ULPH

space-filling display of rather ragged foliage. All the others are narrow belts bearing a foliate scroll with berry-clusters and acanthus leaves. The style is very harsh and stiff, with coarse toothed shading and jagged hollows, and there is little sensitiveness in the modelling. The design is in concept fiercely unnatural, and the virtue of the carving lies in its powerful and heraldic abstract strength. The subjects are a pair of confronted winged monsters with a tree between them, a unicorn, and 'animal-combat' scene, and a little quadruped that hurtles through the air to attack the animal-headed tail of one of the monsters. It is in the highest degree improbable that these subjects possess here any intentional symbolic significance; for though they are no doubt ultimately derived from the earlier symbolic apparatus of the East, the horn is so far removed in time from the distant beginnings of these fantastic animal-forms that the original symbolic ideas attached to them, whatever they were, are not likely to have survived to inspire the carver of the oliphant. The device of the tree or plant between two winged beasts is, for example, at least as old as Babylonian art of the early part of the third millennium B.C., and the curious tails with the zoomorphic heads can be traced back to Syrian art of the 9th century B.C. But the horn is work of the 10th or 11th century A.D., and all this is too remote to be regarded as the immediate source of the animal-decoration, which must rather be connected with a generalized ornamental system of the Near East that had been perpetuated by Sassanian and Early Islamic art.

The dating of the horn depends upon the tradition that it is the horn of tenure for the lands given to the Minster by Ulph, a Danish nobleman who had been established in Yorkshire before the reign of Edward the Confessor.² The first mention of this tradition occurs in a metrical chronicle which was written, as its prologue shows, during the time of Archbishop Thomas Arundel (1388-97), though there is no extant copy of it earlier than the middle or end of the 15th century.³

² There is no justification for identifying this Ulph Thoroldsson with the better-known Ulph Thorgilsson who was the brother-in-law of Cnut and was eventually put to death by the king. Note that the use of a horn as a symbol of landed property is well attested; cf. *Archaeologia* (1786) III, 1; *Burlington Magazine* (1909) xv, 221; *ib.* (1928) LII, 277. The Pusey horn, which was recently in the sale room, is a well-known example.

³ British Museum MSS, Cleop. c. iv, fol. 16 and Titus A. xix, fol. 8b. The poem is printed by James Raine, *Historians of the Church of York* (Rolls Series), II, 446 ff. (see lines 285-92). The tradition is repeated by Camden, *Britannia* (ed. Gough, 1789), III, 10, 65.

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According to this poem Ulph (consul et insignis Eboracensis, comes) ceded lands to the Minster, giving as a token of the transfer an ivory horn (ex ebore cornu . . . cornea buccina, candida, lucida), which transfer was confirmed by Edward the Confessor. Moreover there is no doubt that in Arundel's day the tradition was focused upon an ivory horn then existing in the Treasury of the Minster ; for John de Neweton, who was installed as treasurer in 1393, added a chain to the 'great horn of ivory with silver-gilt ornament, the gift of Ulph, son of Thorold'.⁴

But we can go further back than this ; for there is a representation of the horn carved by the side of the supposed arms of Ulph in the spandrel next to the transept on the north side of the nave, which was built c. 1300.⁵ It is, I think, a legitimate inference from this that a horn of tenure was associated with Ulph's gift of land at least as early as the middle of the 13th century ; for there is not the slightest reason to suspect a need for forged credentials or any other medieval deceit. And this brings us sufficiently close to the ratification by the Confessor to make it clear that in all probability the tradition was founded upon fact. Furthermore, we can believe with confidence that the horn, which was the symbol of the transfer of Ulph's property, was none other than the oliphant still surviving in the Chapter House ; for on the south side of the choir, which is not very much later in date than the nave, there is another carving of the horn by the side of Ulph's arms, and this is zoned and faceted in the manner of the surviving oliphant, which it is most plainly intended to represent. I feel, therefore, that there is strong presumptive evidence in favour of the traditional view that the York oliphant was given to the Minster by Ulph, and this means that it must not be dated later than the first half of the 11th century.

This is the only point that I wish to make here ; for it is not part of my purpose to discuss oliphants as a class. We must wait for Dr. Goldschmidt's next volume of his great work *Elfenbeinskulpturen* before

⁴ Neweton's gift of the chain is recorded in a 16th century inventory ; see Raine, *op. cit.*, III, 386.

⁵ Probably 1309-10. The Rev. Chancellor F. Harrison, who has been kind enough to help me in connexion with this paper, remarks that the horn here, as now seen, is a poor representation of the real thing, having been restored after the fire of 1840-1. He observes further that Ulph's shield of arms is to be found balancing that of the king over the interior of the west door, and perhaps signifies in that position the temporal power of the church. In the choir, where there is a much better version of the horn, Ulph's shield comes next to that of France (before 1340), an obviously important place.

PLATE II



THE HORN OF ULPH (detail)—diameter of mouth 5 inches

PLATE III



THE HORN OF ULPH (detail)

PLATE IV



THE HORN OF ULPH (detail)

PLATE V



THE HORN OF ULPH (detail)

THE HORN OF ULPH

we have an exact attribution for the York piece ; but I imagine it will be assigned to a Byzantine school in Europe or Asia Minor rather than to some Fatimid or purely Eastern workshop. It is, however, right to observe that the Horn of Ulph is by no means an unusual sort of oliphant, though it is certainly a very fine one. Others are very closely allied to it in the style of their ornament, and of these the horn that is nearest to it—so near that it might well be regarded as a work of the same hand—is one in the Cabinet des Medailles (Bibliothèque Nationale), in Paris, which comes from Chartreuse de Portes, Ain. It has its ornament arranged in zones that extend without interruption over the main body of the horn, and it is remarkable for the intrusion of a Good Shepherd figure among its array of oriental beasts ; but the style and treatment of these creatures is almost identical with those of similar beasts on the Horn of Ulph, and we find an exact repetition of the unicorn-and-lion group on the York carving. There is another oliphant in Saragossa cathedral that belongs to the same school.

The York type, however, is distinguished by the fact that the main length of its body bears no carving at all and is lightly faceted. A number of other oliphants are of the same kind, and of these the most important is the Horn of St. Norbert at Zurich which, as an inscription attests, was given to the abbey of St. Gall by Norbert himself, presumably before his retirement in 1072.⁶ The ornament differs from that of the York horn, for there is no frieze of animals at the mouth, and the tip is covered with a thin formal scroll of a foliate kind ; but we come nearer to Ulph's horn with the example from the Muri monastery, Switzerland, now in the Kunsthistorisches Museum in Vienna, which has a faceted body, a frieze with animals and figures at the mouth, and marginal scrolls flanking the spaces for the metal mounts.⁷ An oliphant at St. Trophîme, Arles, is of the same kind, and so is the Horn of St. Blasius, once in the Guelph collection. Others with a faceted body are to be seen in the Prague Treasury, in the Victoria and Albert Museum, in the Kaiser-Friedrich Museum in Berlin, at the Musée St. Jean, Angers, and in the collection of the Marquess of Ailesbury. This last is the celebrated Bruce horn, well-known for its extremely fine 14th century metal mounts, and it is from our point of view the most interesting of all in this faceted series ; for though the ivory tusk has

⁶ *Anzeiger f. schweizerische Altertumskunde* (1926), NF. XXVII, p. 93.

⁷ *Anzeiger f. schweizerische Altertumskunde*, loc. cit. p. 169. This horn is associated by an inscription of 1199 with Adalbert III of Habsburg.

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no other ornament than its ribbing, it is important to us as a second example in this country of an oliphant that is said to be a horn of tenure, as it is traditionally associated with the holding of Savernake Forest.

Therefore, though we rightly respect the Horn of Ulph as one of the most venerable and precious of the minor antiquities in the keeping of the Church of England, we shall do well to remember that in its day it was not more than one of a large series of similar costly ivory horns that had found their way into western Europe. This is a point that should perhaps be taken into consideration in connexion with the plausibility of the York tradition ; for since these horns are not excessively rare, there is nothing very odd or unlikely in the fact that one of them should have become the property of a Danish nobleman in England. We all know that the connexion between the Viking world and the Byzantine East was a close one. Moreover, the story, mentioned by Mr Bunt, that Ulph himself received the horn from King Cnut at the time of the original grant of the lands subsequently transferred to the Minster, must be held to be a reasonable extension of the tradition attached to the York oliphant ; and if this further tale be true, the only comment it seems necessary to make is that Ulph was lucky enough to receive a much more valuable symbol of his territorial holding than did the grantee of the Pusey estate, to whom Cnut gave a plain ox-horn.

[The author and editors wish to acknowledge their grateful thanks to Mr C. J. P. CAVE for his kindness in taking the photographs which have made possible the publication of this article].

The Battlefield of Brunanburh

by W. S. ANGUS

BRUNANBURH was fought in the late summer of 937 between king Athelstan and all the might of England on one side, and the viking Olaf Guthfrithson, king of Dublin and claimant to the throne of York, and his ally Constantine II, king of Scots, upon the other. The thousandth anniversary of this British battle of the nations is an occasion for reviewing critically the evidence upon the disputed question of its site. The well-known poem in the Anglo-Saxon Chronicle, being impressionist rather than narrative, provides only two or three slight clues; the Latin poem preserved by William of Malmesbury,¹ of early but uncertain date, helps us only a little further; and the Northumbrian annals used by Symeon of Durham seem to have supplied him with an alternative name for the battlefield but no other indication of its locality. Judgment must therefore be based largely upon the names by which the battle was known and upon traditions preserved by writers who had no claim to be contemporary; and the reliability of such evidence must be tested.

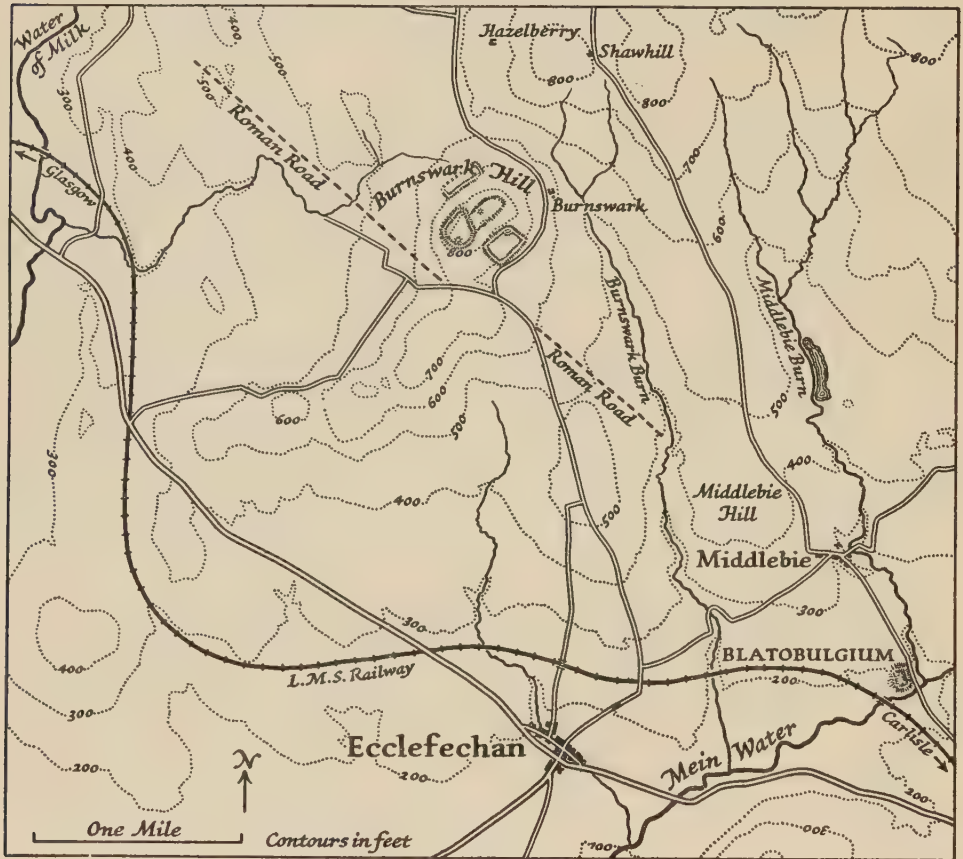
The place of battle was known to early medieval writers by some eight different names.² Most of them consist of the main element Brun-, Brunan-, or Brunes-, which might appear by itself but was usually linked with one of the terminations -burh, -werc, -dun, -fort, or -feld, or the prefix Dun-; and the battlefield was also called Wendune, and perhaps Vinheiðr in Old Norse. These variations suggest that the engagement took place on a field or heath beside an artificial or natural stronghold, and some such fortress is also perhaps implied by the phrase 'ymbe Brunanburh', 'round Brunanburh', in the poem in the Anglo-Saxon Chronicle. But it also seems that the form of the name was not well fixed in current English speech at the time of the battle; and the main element Brun appears without prefix or suffix in the *Annales Cambriae* and *Brut y Tywysogion* only, while

¹ William of Malmesbury (Rolls Series), *Gesta Regum*, lib. II, §135 (I, 151).

² See list given by G. Neilson, 'Brunanburh and Burnswark', *Scottish Historical Review* (1909), 38, an article to be consulted *passim*.

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English writers added some termination. These points may be illusory, but may be reason for satisfaction if other evidence indicates a site on the confines of Celtic territory.



THE BATTLEFIELD OF BRUNANBURH

More than thirty places have been suggested as the site of the battle.³ Some have little more to recommend them than a superficial resemblance of name. The modern study of place-names puts such claims to scientific tests. Dr A. H. Smith has recently shown⁴ that

³ See list given by J. H. Cockburn, *The Battle of Brunanburh and its Period*, pp. 40-48.

⁴ A. H. Smith, 'The Site of the Battle of Brunanburh', *London Mediaeval Studies* (1937), I, pt. I, 56-59.

THE BATTLEFIELD OF BRUNANBURH

old spellings of the name of Bromborough in Cheshire make it fairly certain that its original form was Brunanburh ; and he states that this connexion has been established for no other place-name. He concludes that Bromborough merits close attention as a likely site of the battle, along with Burnswark near Ecclefechan in Dumfriesshire, which in 1542 was Burnyswarke.

The case for Burnswark was expounded by Dr George Neilson,⁵ who used three main arguments in its favour. The name and its few traceable older forms were sufficiently close to Gaimar's *Bruneswerce* and to *Etbrunnanzwerce*, given by Symeon of Durham as an alternative to *Brunnanbyrig* and *Weondune*.⁶ The general location agreed with that indicated by *Alia Miracula S. Johannis*,⁷ a Beverley tract written about 1170-1180, which Neilson thought was corroborated by Egil's Saga. Finally, the detailed description in that saga of the battle of Vinheiðr fitted perfectly, in Neilson's view, with the topography of Burnswark. We may therefore attempt next to assess the reliability of the descriptions of the campaign extant in the works of medieval writers.

According to Florence of Worcester, Olaf landed in the Humber.⁸ Florence is the only authority for this statement, though Symeon of Durham, Roger of Hoveden, and Roger of Wendover copied him at first or second hand.⁹ The ancient poem preserved by William of Malmesbury¹⁰ implies fairly clearly that Olaf landed in the friendly territory of the Scots, and an invasion by the Humber is incompatible with the account given by the Beverley writer of *Alia Miracula S. Johannis*, who may be credited with a better knowledge of the north of England than Florence can have had. Olaf came from and returned to Dublin,¹¹ and would hardly risk either a voyage round the north of Scotland or an engagement with Athelstan's fleet in the Channel when he might join Constantine after a short crossing of the Irish Sea.¹²

⁵ G. Neilson, *op. cit.*

⁶ Symeon of Durham (Rolls Series), *Historia Dunelmensis Ecclesiae*, lib. II, xviii (1, 76).

⁷ *Historians of the Church of York* (Rolls Series) I, lv, 294-6.

⁸ Florence of Worcester (*ed.* B. Thorpe), I, 132.

⁹ Symeon of Durham (Rolls Series), *Historia Regum*, § 107 (II, 125); Roger of Hoveden (Rolls Series) 54; Roger of Wendover (*ed.* H. O. Coxe), *Flores Historiarum*, I, 392.

¹⁰ William of Malmesbury, *loc. cit.*

¹¹ A. S. Chronicle, A, B, C, D, 937; *Four Masters*, 935; *Chronicon Scotorum*, 936; *Annals of Clonmacnoise*, 931.

¹² See Sir C. Oman, *England before the Norman Conquest*, p. 520.

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Florence's statement is therefore improbable and at variance with other authorities.

It has been contended that Athelstan's visit to Beverley, referred to in *Alia Miracula S. Johannis*, was an event of 934 and not of 937, and that the details of Athelstan's campaign recorded in that work must also be placed in the earlier of these two years, when Athelstan certainly invaded Scotland.¹³ The tract does not supply the date of Athelstan's visit, and Symeon of Durham¹⁴ makes it clear that his gifts to St. Cuthbert's church at Chester-le-Street belong to the year 934, whatever may be the date of his gifts to Beverley. But Athelstan may not have visited both Beverley and Chester-le-Street in the same campaign. It is immaterial that the *Liber de Hyda* refers first to the gift to Beverley and then to Brunanburh,¹⁵ for the first passage is apparently derived from William Ketell's *Miracula S. Johannis Episcopi Eboracensis*,¹⁶ which associates the visit to Beverley with 937 more probably than with 934, and the second is a conflation of material from Florence of Worcester's chronicle and William of Malmesbury's *Gesta Regum*. Moreover *Alia Miracula S. Johannis*, avowedly a revision and an amplification of Ketell's *Miracula S. Johannis Episcopi Eboracensis*, tells of an invasion of English territory by the Scots, followed by their retirement to fight on favourable ground and a battle ending in the flight of their king. We know from other authorities, notably William of Malmesbury,¹⁷ that all these things happened in 937, and we have no satisfactory evidence that any of them came to pass in 934, when Athelstan marched his army far into Scotland while Constantine apparently refused a general engagement.¹⁸ Symeon, indeed, says in the *Historia Dunelmensis Ecclesiae* that in 934 Constantine, king of Scots, and Owen of Strathclyde were put to flight; but this statement appears neither in the Cuthbertine annals in the *Historia Regum*, §83, nor in the *Historia de S. Cuthberto*, which represent texts which Symeon was clearly using; and it is therefore an amplification of uncertain authority. On the

¹³ Plummer, *Two Saxon Chronicles*, II, 140; A. H. Smith, *op. cit.*

¹⁴ Symeon of Durham (Rolls Series), *Historia Dunelmensis Eccles.*, lib. II, xviii (I, 75-6), and *Historia Regum*, § 83 (II, 93). *Historia de S. Cuthberto*, §§ 26, 27, may seem to imply that the gifts were made in 937, but does not necessarily do so. (Symeon of Durham, I, 211, 212).

¹⁵ *Liber de Hyda* (Rolls Series), 118, 123.

¹⁶ *Historians of the Church of York* (Rolls Series), I, 263-4.

¹⁷ William of Malmesbury, *Gesta Regum*, lib. II, § 131 and § 135 (I, 142, 151-2).

¹⁸ Symeon of Durham, *Historia Regum*, §§ 83, 107 (II, 93, 124); *Historia Dunelmensis Eccles.*, lib. II, xviii (I, 76).

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other hand, an entry in the *Annals of Clonmacnoise* (sub anno 927, referring to 934) may be quoted for what it is worth : 'and yet the Scottish men compell'd him to return without any great victory'. Even if the author of *Alia Miracula S. Johannis* was wrong in associating Athelstan's visit to Beverley with his campaign in 937, his details about the military operations must refer to that year and represent an independent tradition about the campaign of Brunanburh. In the circumstances, his evidence must be considered important.

Can the same be said of Egil's Saga ? It reads as though the battle at Vinheiðr was fought soon after Athelstan's accession, but such a battle against the Scots cannot easily be fitted into the events of 927. There are several chronological difficulties in the saga : according to it, Eric Bloodaxe arrived in England during Athelstan's lifetime, and Eric and Athelstan died about the same year,¹⁹ whereas Athelstan's death occurred in 939²⁰ and the first notice in English texts of Eric's presence in this country is under the year 948 and the last is in 954.²¹ For these reasons and others it has been suggested that Egil's Saga is what we should call a historical novel and not an authentic biography ;²² and some of those who have taken it to be originally authentic enough have considered its accuracy to have suffered during the two centuries before it was first written down about the year 1200. But Scandinavian scholars have recently propounded a revised chronology for the events of this and other sagas. They maintain that those who reduced the sagas to writing followed the system of dating worked out by Ari the Wise, and that Ari placed the events of the time of Harald Hairfair and his sons some fifteen years too early.²³ Egil's Saga, it is suggested, has been edited so as to bring the dating of its references to public events into line with Ari's chronology.²⁴ This theory certainly removes the difficulties in its dates : Vinheiðr is equated with Brunanburh,

¹⁹ Egil's Saga, ch. 59, 67.

²⁰ See Murray R. L. Beaven, 'The Regnal Dates of Alfred, Edward the Elder, and Athelstan', *E.H.R.* (1917), xxxii, 517 ff.

²¹ A. S. Chronicle, D 948 ; D, E and F 954.

²² See A. Bley, *Eiglastudien*.

²³ See G. Vigfusson, *Corpus Poeticum Boreale*, II, 487-500 ; Halvdan Koht, *Inhogg og Utsyn*, pp. 34-51, and *Norsk Historisk Tidsskrift*, 5 R. VI, 146-168 and 5 R. VII, 425-438. On the other side may be quoted Finnur Jonsson, *Norsk Hist. Tidsskrift*, 5 R. VI, 1-15 and Johan Schreiner, *Norsk Hist. Tidsskrift*, 5 R. VII, 161-224. The balance of the argument seems to be with Professor Koht.

²⁴ See Per Wieselgren, *Svenska Historisk Tidsskrift*, 49 Årg., Häft 1, p. 35 ff.

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Eric Bloodaxe arrives in York at the proper time, and the apparent prolongation of Athelstan's life is accounted for by the explanation that the editor or a saga-teller substituted his well-known name for that of one of his less famous brothers²⁵ or simply for 'the English king'. The more this revised chronology is examined, the more convincing it appears in general, and the opinion that Egil's Saga is a historical novel is at least shaken, though a novelist might use Ari's chronology as well as the editor of a biography. But whether the saga is or is not authentic, its story of Vinheiðr must surely represent an Icelandic tradition of Brunanburh, with its date altered to fit Ari's scheme; and a campaign is precisely the sort of thing about which a saga is likely to be reliable. One who took part in it would bring home his story; well told, it would be treasured as an example of the saga-man's art; and his veracity on details of the fighting is not to be questioned simply because he went astray about a leader on the opposite side, making Olaf 'the Red' king of Scots and saying that he fell in the battle. An error of that kind no more undermines belief in the story of Vinheiðr than Snorre's mistakes about the sons of Godwin discredit him on Norwegian history. An editor writing the story down, or even a novelist using it, would have little interest in altering its details, though he might 'correct' its historical setting. When we come to examine this Icelandic tradition, its account of the campaign agrees in important essentials with the English tradition in *Alia Miracula S. Johannis*, written down about the same time, and is not incompatible with William of Malmesbury's older poem; and its account of the battle has a curious resemblance to yet another English tradition preserved in the forged chronicle of Ingulf.²⁶ Egil's Saga, then, cannot be neglected, and if its full details fit an otherwise possible battlefield, it is not entirely arguing in a circle to regard its credibility as strengthened.

If these witnesses whose veracity has been doubted are to be regarded in this light, the following indications about the site of the battle are to be deduced. It was fought at some spot to which the Scots and the vikings retired after invading and harrying part of Athelstan's dominions.²⁷ This place lay in Scottish territory, on the

²⁵ The same mistake may be seen in the *Annals of the Four Masters*, 944 (=946), where Athelstan's death is recorded for Edmund's.

²⁶ Rev. C. W. Whistler, 'Brunanburh and Vinheið', *Saga Book, Viking Club* (1909), VI, 59; G. Neilson, *op. cit.*, 41.

²⁷ William of Malmesbury, *Gesta Regum*, lib. II, §135, (I, 151); 'Alia Miracula S. Johannis', *Historians of the Church of York*, I, 295; Egil's Saga, ch. 52.

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Scottish side of a river-crossing known as the *Scotorum Vadum*, which may be interpreted the Scots' wath or ford, and may or may not have been on a boundary-stream which Constantine's army crossed before invading England.²⁸ Since the retirement mentioned in English sources is compatible with Egil's story of the tryst at the hazelled field, the site should be for preference conspicuous and accessible. It should be near enough to a point on the coast to make possible Olaf's escape to his boats, but not too near, for the pursuit was apparently long; and the coast should preferably be the west coast, within reasonable reach of Dublin by sea.²⁹ The battlefield should supply the features which the account in Egil's Saga requires. Finally, remembering the names of the battle as well as the 'burgs' in Egil's Saga, we must look for some sort of stronghold.

The case for Bromborough shows poorly under these tests, strong though it is on purely philological grounds. The Scots must indeed have penetrated deeply into England if they came so far south. The wily Constantine would never retire into the corner of the Wirral except under compulsion, and would much less agree to it as the appointed place for a trial of strength. It was not in his territory, and it would be surprising if any stream in that neighbourhood were called the *Scotorum Vadum*. Olaf, indeed, could readily escape from the Wirral by boat to Dublin, and Athelstan's troops might spend hours chasing him across the peninsula to the Dee, but Constantine's retreat to Scotland would be hopeless unless he also could get away by sea. There is an earthwork at Bromborough,³⁰ but the game of fitting Egil's account to the locality does not promise success.

Burnswark, on the other hand, comes well through this historical test, though the philological evidence for it, good as far as it goes, is slender in comparison with that for Bromborough. In 927 Athelstan had taken possession of Cumbria, and according to Egil's Saga two earls with Norse names who ruled over 'Wales' deserted him and joined the Scots. Place-names which appear to be Norse in origin are fairly common in the lowlands of Dumfriesshire but not in the hills, and Athelstan's frontier may have included some territory on the north side of the Solway. The boundary, therefore, may have run close to Burnswark. As Neilson observed, Olaf's ships could lie on the north

²⁸ *Alia Miracula S. Johannis*, loc. cit.

²⁹ Anglo-Saxon Chronicle, A, B, C, and D, 937.

³⁰ E. S. Armitage, *Early Norman Castles of the British Isles*, p. 32.

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shore of the Solway ; the outstanding landmark of Burnswark hill, with the Roman road crossing its shoulder, was most suitable for an agreed meeting-place ; Constantine, having ravaged part of Northumbria, could readily retire there before the battle and after it could flee north to Alban. The head of the Solway, Neilson thought, was the *Scotorum Vadum* ; and at Burnswark the ground with its steep hill and its earthworks seemed in his eyes to fit Egil's account admirably.

But Neilson's case for Burnswark, like the evidence of medieval traditions, should be subjected to examination. His argument on the general locality of the battlefield depended on the reference in *Alia Miracula S. Johannis* to the *Scotorum Vadum*. For his identification of it with the Solway his main authority was the 14th century writer Fordun, who mentioned the Scots' Wath more than once, and clearly thought it was the Solway,³¹ knowing also the name ' the Scots Water ' applied to the Forth.³² On this latter point, Fordun is supported by a 12th century description of Scotland.³³ A doubt, however, is aroused by a statement in Reginald of Durham's *Vita S. Oswaldi*, written in 1165, that the early Anglian kingdom of Bernicia extended from the source of the Tyne ' usque in Scotwad, quod Scottorum lingua Forth nominatur ',³⁴ and a 12th century Durham monk seems more likely to have known what his contemporary at Beverley meant by ' the Scots' Wath ' than the 14th century Scotsman Fordun. A site somewhere near Stirling would fit many requirements : Constantine and Athelstan would fight on their borders, Athelstan could retire south through Dunbar, as he is said to have done in *Alia Miracula S. Johannis*, and Olaf could escape to his ships beached somewhere on the Clyde, as probable a harbour for them as the Solway. But a site in that neighbourhood, with names which may have been Brunanburh or Wendune, and with earthworks, heath, wood and stream so placed that they fit the account in Egil's Saga, is still to be found, and the search is not promising ; and an examination of manuscripts removes all reason for pursuing it. In the Bodleian MS. of this *Vita S. Oswaldi* (Fairfax 6)

³¹ Fordun, i, 2 : ' Flumen Esk quod dicitur Scotiswath sive Sulwath ' ; iii, 2 : ' Esk, sed alias dicitur Scotiswath '. See G. Neilson, *op. cit.*, p. 39, and *Annals of the Solway* (1899), p. 18 ; Plummer, *Two Saxon Chronicles*, II, 262.

³² Fordun, i, 2 : ' Flumen de Forth, quod . . . dicitur . . . mare Scoticum '.

³³ W. F. Skene, *Chronicles of the Picts and Scots*, p. 136 : ' illa aqua optima, que Scottice vocata est Froch (*i.e.* Forth), Brittanice Werid, Romane vero Scottewatre, id est Aqua Scottorum '. See also Plummer, *op. cit.*, II, 267.

³⁴ Symeon of Durham, *Vita S. Oswaldi* I, lv (Rolls Series, I, pp. 339, 382).

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there is no trace of the explanatory clause 'quod in Scottorum lingua Forth nominatur', and in John Tode's 16th century transcript of it (British Museum, Harleian 4843) the clause is inserted in the upper margin and reads 'quod modo scottorum lingua forth nominatur'.³⁵ These seem to be the only extant manuscripts of the *Vita*, and the suggestion conveyed by the printed text that Reginald of Durham knew the Forth as 'Scotwad' appears to be due to faulty editing. Fordun's evidence that the Scots' Wath was on the Solway may therefore stand.

We must see next what sort of a battlefield Burnswark has to offer. Neilson thought that Olaf and the Scots camped in the Roman earthwork immediately to the north of Burnswark hill, and Athelstan's advanced force and perhaps his whole army in that on its southern slope. If forces were so disposed, an observer on the top of the hill could count the troops camping on the lower slopes on the south side, and Egil's ruse of using more tents than his men needed would be of no avail. According to the saga, Egil pitched his tents on the level heath, to the south of which was the burg where Athelstan camped when he came up; and that burg was sufficiently far from Olaf's camp to make some hours necessary for the final journey of the messengers who passed between the two kings, their earlier errands having been completed while Athelstan had still some way to go before he came up to his advanced force. A river and a wood were the boundaries of the heath on which the battle was fought; but the stream near Burnswark farm at the eastern end of the hill, to which Neilson referred, is a mere trickle, and though it flows through boggy ground it is not a serious tactical feature. Moreover, in the saga, the wood was on the right of Athelstan's army and the stream on their left,³⁶ and Neilson's burn would be on the right of any force attacking the hill from the southeast. Finally, the saga states that the chosen field had to be level, where a great host could be arrayed; but two armies such as were engaged could not conceivably manoeuvre in the way described in the saga for two days on the top of the hill.³⁷ It is only some 500 yards long and 200

³⁵ Acknowledgment for this information must be made to the Keeper of Western MSS. in the Bodleian Library and the Keeper of MSS. in the British Museum. John Tode's transcript is incorrectly cited as Harl. 4853 in Symeon of Durham (Rolls Series), I, xix.

³⁶ Egil's Saga, ch. 54: 'They (*i.e.* Thorolf's men in Athelstan's army) had their shields before them, but the wood was on their right: they let it cover them on that side'. (E. R. Eddison, *Egil's Saga*, 1930, 108-109).

³⁷ As is noted by O. G. S. Crawford, 'The Battle of Brunanburh', *ANTIQUITY* 1934, VIII, 338-9.

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yards broad, and the sides are everywhere steep, breaking out in places into little craggy outcrops of rock. Olaf had scraped together every available man, compelling the vikings of Lough Rhee to join him.³⁸ According to Symeon of Durham,³⁹ he had crossed the sea with 615 ships, a number too exact to be lightly dismissed; he may therefore have had some 20,000 men. Constantine's army must have been worthy of the alliance; Athelstan's was at least large enough to defeat both the Scots and the vikings.

A spur from the ridge of which Burnswark hill forms part runs roughly southeast from the hill and terminates two miles away in a rounded knoll, of which the top, above Middlebie hill farm, is between 450 and 500 feet above sea level; Burnswark hill itself reaches 920 feet. A mile further in the same direction lies the Roman fort of Blatobulgium or Birrens, on a low bluff above the Mein Water, in the angle formed by its confluence with the Middlebie burn. The Roman road from Carlisle approached Birrens from the southeast, and led on past it and over the rising ground of Middlebie hill by a route not marked on the ordnance map until, at a point in the direct line from Birrens to Burnswark hill, it crossed the stream flowing southwards from Burnswark farm. From this crossing to the saddle beside Burnswark hill its track is marked on the map and can readily be picked out in places on the ground. The crossing of the burn was at the lowest suitable point, for downstream the valley becomes a narrow, steep-sided ravine. Apart from this valley and the similar gorge of the Middlebie burn parallel to it on the east, on the other side of the spur on which is Middlebie hill, the country south and southeast of Burnswark hill as far as the Mein Water is a rolling upland of reasonably easy slopes and long spurs with rounded contours, a possible battleground for two armies meeting at the conspicuous landmark of the hill itself. If the English wished to conceal the weakness of their advanced guard, they would seek a position visible by their enemies but not under close observation. The knoll of Middlebie hill would meet this and other tactical needs, and squares well with the story in the saga. The tents, we are told, were pitched where the heath was narrowest between wood and water, but yet a long way off from Olaf's camp. A force on Middlebie hill facing Burnswark would have on its right the gorge of the Middlebie burn,

³⁸ *Four Masters*, 935 (=937); *Chronicon Scotorum*, 936; *Annals of Clonmacnoise*, 931.

³⁹ Symeon of Durham, *Historia Regum* § 83, II, 93, and *Historia Dunelmensis Eccles.*, lib. II, xviii (I, 76).

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wooded perhaps then as now, and on its left the burn from Burnswark farm, which thanks to its deep valley near Middlebie hill might there be a tactical feature worthy of description as a 'water', even though it would hardly be such nearer to its source. The tents of a force in this position would be on the upland, in a place which even today is not far from moorland; behind them the ground would fall away southwards to the ramparts of Birrens, a burg to which Athelstan would come if he approached by the Roman road from Carlisle. Finally, there is the ruse of the tents. The saga says that there were no men in every third tent and few in any one, and the tents stood high, so that there was no seeing over them; and the Scots were thus misled about the strength of the English advanced force. From Burnswark hill, Birrens camp is invisible and Middlebie hill can clearly be seen. A calculation from the contours on the map indicates that the line of vision from Burnswark hill should skim the top of Middlebie hill and the slopes between it and Birrens; it may in fact be blocked by trees of recent growth rather than the ground itself. The point is easily demonstrated on the spot. Burnswark hill is conspicuous as one approaches Birrens from the southeast, but as one drops down to the Mein Water it sinks from view behind the trees on the rising ground to the north of the camp, and disappears just before one reaches the stream. Olaf's observers, therefore, if stationed on Burnswark hill, could see tents pitched on the high ground at Middlebie hill, and could well be misled by camouflage and propaganda about the strength of the forces there and in Birrens camp.

Neilson's conceptions, then, may be modified in this way, if Burnswark was the site of Brunanburh; and the arguments in favour of Burnswark are strong. As far as the history of its name is concerned, it ranks among the possible sites as second to Bromborough only, and a good second at that, defective in quantity rather than quality. The English traditions point more clearly to the neighbourhood of Burnswark than to that of any other suggested site; and if the agreement between the Icelandic tradition in Egil's Saga and the topography of Burnswark is a coincidence, it is a remarkable one. Accounts preserved orally for 250 years, in England or in Iceland, may be less certain evidence than one would wish to have; but the points of agreement between three such separate traditions and the older evidence are striking, and we have nothing more definite in which to place our trust. Unless more perfect means of proof comes to light, the case for Burnswark must continue to hold the field.

Some Stone Monuments

by C. W. PHILLIPS

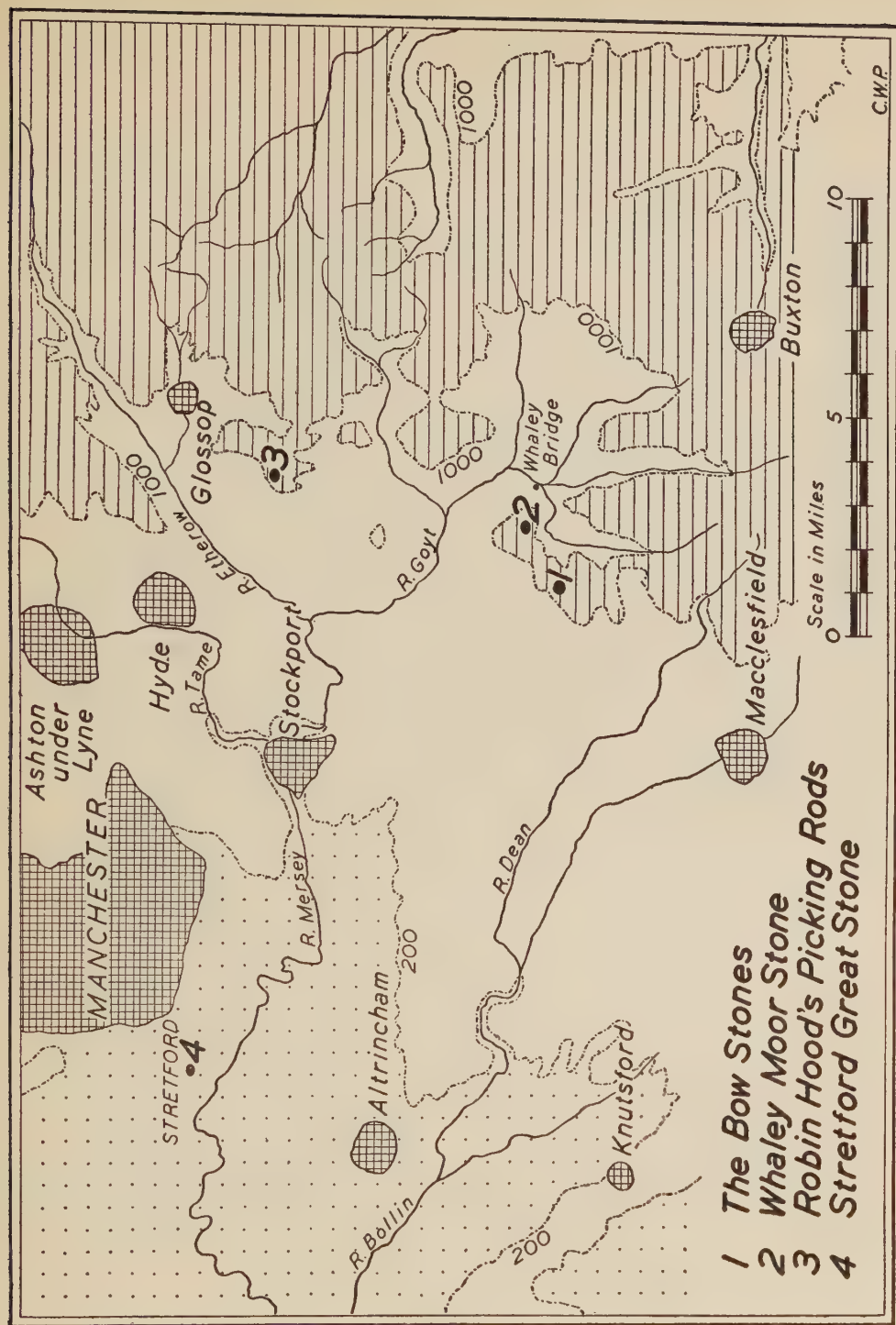
AMONG the many ancient stone monuments in the British Isles there are few which are so little known as the small related group found standing chiefly on high moorland overlooking the Cheshire Plain on the southeast side of Manchester.

Four survive in various stages of decay and they take the form of large roughly rectangular or oval blocks of stone with two adjacent circular or rectangular sockets on their upper faces, which sockets either still contain or have contained upright stone pillars.

The following table gives their names and localities and their general relation to each other is shown in the sketch map.

Name	Parish	Ordnance sheet	Latitude	Longitude	Height above sea level
The Bow Stones (Park Moor Stones)	Lyme Handley	Cheshire 29 N.W.	53° 19' 42"	2° 2' 23" W	1250'
Robin Hood's Picking Rods	Chisworth	Cheshire 11 S.E.	53° 24' 52"	1° 59' 28" W	1200'
Standing Stone or Plague Stone (The Dipping Stone)	Yeardsley cum Whaley	Cheshire 29 N.E.	53° 19' 55"	2° 0' 25" W	1100'
The Great Stone	Stretford	Lancashire 104 S.W.	53° 27' 17"	2° 17' 45" W	90'

It will be seen that with the exception of the Stretford Great Stone these monuments are set in lofty remote places, but, in spite of this, they are all close to ancient lines of communication. The most convenient method of dealing with them will be to describe each in detail and then to consider the group as a whole.



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THE BOW STONES (PLATE I)

This monument stands on the westernmost edge of the Pennines overlooking Wilmslow, Cheadle, and Altrincham. The ridge has an average height of about 1250 feet and is bounded on the east side by the deep valley of the Todd brook running northwards to join the river Goyt at Whaleybridge.

A moorland road called the Bowstone Gate runs along this ridge past the monument and is part of an old route from Disley to Macclesfield.

The Bow Stones is the most perfectly preserved of the monuments and is protected from injury by an iron railing. The base stone is a flat topped oval mass 6 feet 4 inches long and about 4 feet wide set firmly in the ground. The two pillars of millstone grit stand in round socket holes which Lysons says are 11 inches deep¹ but the stones are now cemented in position. The pillars are cylindrical, taper slightly towards the top, lean a little together, and are 4 feet and 3 feet 2 inches in height respectively. The tops are rounded and are given a rough capital effect by two grooves one inch apart cut round the pillar at a distance of 5 inches from the summit. Of the two the shorter one has preserved its detail best, besides showing some badly weathered but unmistakable signs of an interlaced decoration on the summit above the ring-grooves. Each of the pillars has had a number of large initials cut on it at some fairly distant date and, more important, each carries a plain incised cross which was clearly not part of the original scheme of decoration. The only piece of local lore about these stones is that 'Robin Hood's men used to string their bows here'.

ROBIN HOOD'S PICKING RODS (PLATE II)

This monument stands by the side of the track running east and west along the summit of the ridge to the south of Chisworth, a little west of Far Slack Farm. Apart from a few circumstantial differences it is safe to say that in its original form the 'Picking Rods' was very similar to the Bow Stones. (A picking rod is a weaver's implement for placing lines of weft between the divided warp).

The base stone is a large irregular oval of natural form 6 feet 4 inches long, 3 feet 10 inches in maximum width, and 1 foot 6 inches in depth. The two pillars are now of unequal height and both have

¹ S. and D. Lysons, *Magna Britannia*; Cheshire, p. 459.

PLATE 1



THE BOW STONES (*see p. 296*)
ph. T. D. Kendrick

PLATE II



ROBIN HOOD'S PICKING RODS (see p. 296)

PLATE III



STONE ON WHALLEY MOOR (see p. 247).

PLATE IV



THE STRETTFORD GREAT STONE (see p. 207)

SOME STONE MONUMENTS

lost their upper part. One is 3 feet 7 inches in height, tapering from 17 inches to 14 inches in diameter ; the other is 2 feet 6 inches high with a decrease in diameter from 19 inches to 18 inches. Both are cemented into sockets 21 and 23 inches in diameter respectively. There is no decoration beyond a large N cut deeply in the flattened top of each and the usual initials of hikers.

We are fortunate in seeing the monument in such good condition today for in 1810 the longer pillar and other broken pieces were used in making a farm road nearby² but they have been rescued to the extent that the larger pillar has been replaced in its socket and another fragment—apparently a part of the shorter pillar—is built into a field wall about 10 feet to the west.

STANDING STONE ON WHALEY MOOR (PLATE III)

This name is an incorrect description of the monument in its present form for it is a double socketed base-stone of the type already described, and the pillars which it once carried were thrown down more than 100 years ago and have disappeared.

The stone stands on the western verge of Whaley Moor on the lower slopes of Black Hill and overlooking the valley of the Todd brook to the southwest. The distance from the Bow Stones is not more than $1\frac{3}{4}$ miles as the crow flies, and it is possible with the naked eye to pick out the Bow Stones against the western skyline.

In describing the stone Lysons says that the fragment of a stone pillar 2 feet 3 inches long was formerly to be seen near it.³

The stone is a roughly rectangular mass of millstone grit 4 feet long and varying in width from 21 to 32 inches, containing two rectangular sockets with rounded corners one of which has had part of its side broken away, and the only thing which distinguishes it from the base-stones of the other monuments is its general rectangularity.

Local tradition calls it the 'Dipping Stone' and says that the sockets were filled with vinegar in which to dip coins when trade was carried on in time of plague, in fact 'at the same time that the grave-stones were put up by the Bow Stones'.

This refers to some lonely graves of plague victims belonging to the 17th century which are still to be seen in a small close on the summit of the ridge about a quarter of a mile north of the Bow Stones.

² William Bateman, *Vestiges*, 1848, p. 171.

³ Lysons, *op. cit.*, p. 459.

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THE STRETTFORD GREAT STONE (PLATE IV)

This, the last of the four, presents a great contrast to the others in its position. It stood from time immemorial on the south side of the Roman road from Manchester to Chester in the parish of Stretford on the northeast side of Gorse Hill.

For its better preservation the Stretford Urban District Council in 1925 moved it 100 yards to a garden plot at the entrance to the new Gorse Park.

In form it is another roughly rectangular base-stone of millstone grit with two sockets like that on Whaley Moor.

It is 4 feet 9 inches long and 1 foot 9 inches wide, and differs from that on Whaley Moor because one end of the stone has been worn down in a way which is consistent with its use as a mounting block.

Tradition has it that the stone was thrown by a Roman giant named Tarquin from the Roman camp at Manchester, and also that it was used as a plague stone in the same manner as that on Whaley Moor.

What is the age and purpose of these stones? The clue to their age is provided by the Bow Stones. These two pillars are the cylindrical shafts of Anglian crosses. The fillet surrounding the top of each and the traces of interlaced ornament seem decisive on this point. They were stone staff-roads of the type still to be seen at various places in the North of England, but here remarkable for being set close together in pairs.⁴ Of particular importance for our purpose is the fact that examples of single crosses of this type exist at Ilam (Staffs), Leek (Cheshire), Disley (Cheshire), and Brailsford (Derbyshire), all, and particularly the Disley example, at no great distance from our area. In well-preserved specimens the upper part of the cross above the fillet becomes square in section and is elaborately worked on its faces, but this part is missing in all our examples.

A peculiar feature of the Bow Stones is the markedly phallic appearance of the pillars as they exist today. It is clear that since the upper parts of the crosses were broken off someone has been at pains to produce this effect in some detail, and in view of the crosses cut on the shafts it is possible that this may be a remote event in their history. The result of this deliberate adaptation of the Bow Stones has been to suggest another period and purpose for the stones, but I am indebted to

⁴ W. G. Collingwood, *Northumbrian Crosses of the pre-Norman Age*, pp. 5-8.

SOME STONE MONUMENTS

Mr T. D. Kendrick, F.S.A., of the British Museum, for pointing out their true character.

It follows that Robin Hood's Picking Rods are almost certainly the lower parts of two other crosses, and the two base stones at Whaley Moor and Stretford have this much in common with them that they are the bases of similar monuments, though the crosses which they carried had a rectangular section at the base.

With regard to the actual date of these crosses there is no real evidence to go on except that they are in general Saxon, though it is probable that they are not older than the 10th century.

It is interesting to recall the famous pair of cross-shafts in the old market place at Sandbach (Cheshire) in this connexion, though here they stand in separate socket-stones and have a different character.

With regard to their purpose there can also be no certainty except that they were probably boundary marks. J. C. Cox has suggested that double-crosses may mark the meeting-point of more than one ecclesiastical division.⁵ In the time of Charles I, Robin Hood's Picking Rods were known as 'the two standing stones called the Maiden Stones' and at the present day they mark the meeting place of the townships of Ludworth, Chisworth, Mellor, and Rowarth.

The stone on Whaley Moor is also at a point where a boundary makes an angle, and it has been suggested that two small late Saxon crosses in the grounds of Lyme Hall not far away came from here.

Thus there is still much that is uncertain about these peculiar monuments, but it has seemed worth while to place them and their limited distribution on record once more.

⁵ J. C. Cox, 'Early Crosses in the High Peak', *The Athenaeum*, 9 July, 1904, p. 562.

The Bee-hive Tombs of Mezek*

by B. FILOV

Director of the Bulgarian Archaeological Institute, Sofia

SOME important archaeological finds have been made in the course of recent excavations in Thrace, throwing a completely new light on its relations with Greece. Among the most important are the tholos-tombs or bee-hive tombs (*Kuppelgräber*) of Mezek.¹

Mezek is a village in southern Bulgaria, quite near the Greek frontier; it lies at the foot of the easternmost outlier of the Rhodope range, about 6 km. southwest of the railway station of Svilengrad, from which it can easily be reached in a car. Several tumuli can be seen near the village, chief among them being the hill called Mal-Tepe (the 'hill of the treasure'), 14 m. high and about 90 m. in diameter. As far back as 1903, when Mezek was still in Turkish hands, the bronze statue of a boar was discovered near the hill, and four years later was placed in the museum at Constantinople.² This find led the museum authorities to make excavations there, but with no result of any note, and it was not until 1931 that some of the local residents were able to penetrate to the burial-place beneath the hill. All their finds are carefully preserved in the national museum at Sofia. At the same time, the Bulgarian Archaeological Institute has undertaken a complete investigation on the actual site, with the result that a number of important details have been ascertained.

It has been established that the hill was originally encircled with a strongly built *krepis* of huge flagstones, of which only slight traces remain. The entrance to the burial-place (1.55 m. wide and 2.62 m. high) was closed with great stone slabs (FIG. 1); only the uppermost of these slabs is missing, and it is demonstrable that this was removed or broken in ancient times. A grown man could easily creep into the

* Trans. by R. G. Austin.

¹ A detailed account will shortly appear in *Bulletin de l'Institut archéologique bulgare*, vol. XI.

² O. Hamdy, 'Le sanglier de Mezek', *Revue archéologique*, 1908, I, pp. 1-3.

THE BEE-HIVE TOMBS OF MEZEK

interior through the aperture so formed. On either side of the entrance were unimportant remains of late buildings ; their function is not clear, but they show that from the beginning the structure was not completely filled in, and that its entrance was kept open for a long time, which suggests repeated use of the burial-place.

The total length of the burial-place itself (FIG. 2) is 29.95 m. ; it consists mainly of a passage 21.50 m. long, 1.55 m. broad, and 2.60 m. high (FIG. 3). This passage is also constructed of huge flagstones (rhyolite and rhyolite-tufa), joined horizontally with great iron rivets and vertically with strong oak pins. The roof is made of corbelled flagstones, and in cross-section is of regular triangular formation. The passage leads directly to two rectangular chambers, similarly roofed (FIG. 4), the first measuring 1.50 m. by 1.26 m. by 3.20 m., the second 1.82 m. by 2.12 m. by 3.60 m. The burial-chamber proper lies at the end of the passage ; it is round, with a bee-hive shaped dome (FIG. 2), and in form and construction shows a remarkable resemblance to the Mycenaean bee-hive tombs (*e.g.* the tomb of Atreus³), in fact only differing in its smaller dimensions ; it is only 3.30 m. in diameter and 4.30 m. high.

The entrance to this chamber (.72 m. broad and 1.50 m. high) was closed by a folding bronze door, still standing in its original position (FIG. 5) ; a number of knob-shaped ornaments were originally fixed to it, giving the appearance of large nails driven into the fabric, but these have now fallen off. The door-handle, which has likewise fallen off, has been preserved ; it was shaped like a lion's head with a strong ring in the jaws.

At the rear of the burial-chamber, let into the floor, stands a coffin-rest, made from a single huge block of stone (FIG. 8), measuring 2.40 m. by 1.12 m. by .76 m. To the right and left are two stone chests, originally closed with stone slabs. To the edge of the coffin-rest was fixed a single iron bar, still preserved in its entirety.

The coffin-rest stood empty, and the two chests had already been opened and contained no offerings. But on the floor of the domed chamber, and on the covers of the chests, which had been pushed on one side, were found several large bronze and clay vessels, while various other articles of gold, silver, bronze, and iron lay scattered in the other rooms. Plainly the tomb had not been rifled, but for some reason the original contents had already been removed or destroyed in antiquity.

³ See *ANTIQUITY*, 1936, x, 412-15.

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It was not possible to determine whether the objects found belonged to the original burial or to a later one.

Careful investigation of the tomb proved that it had in part undergone renovation, and that it was used repeatedly as a burial-place. The passage was evidently not paved originally; the existing floor, made of huge, roughly worked stone slabs, was added at a later date, when between the slabs was also built in a stone door, probably to block the entrance to one of the two rectangular chambers. These two chambers, as well as the domed room, were similarly floored at a later period; the original floor, which came to light after the later one had been removed, was built with much greater care, with large flag-stones, well polished and accurately fitted.

Between the two floors of the rectangular chambers were discovered, intact, two cinerary interments, containing, among various ornaments, two silver drachmae of Alexander the Great, so that they can be dated to the last decades of the 4th century B.C. But these graves were probably not made until the period when the tomb was renovated, and have nothing to do with the earlier funeral ceremonial. Therefore the tomb itself is clearly older, and must date from the first half of the 4th century B.C. at the latest.

Only the more important finds can be noted here. First, there were several golden ornaments, notably two buckles, important as showing the peculiar characteristic style of the native Thraco-Scythian art (FIG. 13). Noticeable, too, is a heavy, crescent-shaped iron breast-plate, mounted in silver and decorated with finely-wrought ornaments (FIGS. 6, 7). A splendid bronze candelabrum was also found (fragments of it were lying in different places), surmounted by a statuette (.227 m. in height) of a young dancing satyr, holding a large calyx in his uplifted right hand (FIGS. 9, 10). On his head the satyr bears a calathiscus, showing him to be a calathiscus-dancer. This statuette appears to date from the early hellenistic period: it is a variation of a well-known type of dancing satyr, best represented by the lovely marble statue in the Berlin Museum (no. 262) and by one in the British Museum (no. 1656) which is in better preservation. Remarkable also are three large bronze lamps, one of which has two wicks and the others three. Finally there is an extremely well-preserved egg-shaped bronze pail ('bell-pail'), decorated under the handle-loops with great soldered palmettes (FIG. 11).

The two cinerary interments yielded mainly finely-wrought ornaments of gold (FIGS. 14, 15), several beads of glass and clay, and a little flask of coloured glass.

THE BEE-HIVE TOMBS OF MEZEK

Another tomb was uncovered, southwest of Mezek, in an artificial mound on the peak called Kurt-Kale (FIG. 16). It is likewise constructed of large flagstones, and contains one rectangular antechamber (2 m. by 1.74 m. by 2.60 m.), and a round, bee-hive domed room (3.57 m. in diameter, 3.45 m. in height). There was no passage. Over the entrance, now lying fallen beside it, was a large moulded flagstone, constituting the only decoration of the façade. The entrance itself was closed with great stone blocks. The roof of the antechamber is constructed in a quite unusual manner—it consists of large flagstones, laid cross-wise over the corners of the room at a height of 1.65 m. above the floor (FIG. 12). This produces a small square, itself in turn made smaller by three more layers of flags also laid cross-wise over the corners, until finally a rectangular opening .57 m. by .82 m. is left, closed by a single slab. The entrance to the domed chamber is 1.20 m. high and .65 m. wide at its base, .63 m. at its top. It is bounded by three large flagstones, decorated with a simple moulding on the edge (FIG. 12). The domed chamber is identical in form with that at Mal-Tepe.

The tomb at Kurt-Kale had already been pillaged and partly destroyed in antiquity, so that nothing was found there except some bones of horses and fragments of an ordinary clay amphora with pointed base, lying near the entrance. Only its great similarity with Mal-Tepe enables us to date it to the 4th century B.C.

The bee-hive tombs of Mezek are not the only examples of the kind known to us in Thrace. An exactly similar grave was uncovered in 1891 near Lozengrad (Kirk-Kilisse).⁴ In the mountainous region west of Mezek smaller bee-hive tombs have been brought to light, but have not yet been examined with any care. Lastly I must mention one north of Plovdiv, near Rachmanlij, uncovered as early as 1851 and still only superficially investigated. These finds show at any rate that tombs of the type built at Mal-Tepe and Kurt-Kale were wide-spread in ancient Thrace.

I cannot discuss here in detail the problem of the relationship of these tombs to those Mycenaean ones which they so closely resemble. But I would emphasize the fact that such tombs are known to be no longer found in Greece after the Mycenaean period. The Thracian type, going back only to the 4th century B.C., cannot therefore be

⁴ F. W. Hasluck, *Annual of the British School at Athens*, 1910-11, XVII, 76-79.

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explained as an imitation of contemporary Greek tombs. It must rather be regarded as representing a far older native tradition, in which we may justifiably postulate Mycenaean influence. On the other hand, there are definite 'Mycenaean' elements also in the finds from Trebenischte, which belong to the end of the 6th century B.C. The Thracian bee-hive tombs and the finds from Trebenischte are similar phenomena and complementary to each other, which we must explain in the same way. Doubtless it is here a question of a late echo of Mycenaean influence, which must trace back to the zenith of Mycenaean culture ; and we are justified in assuming that this culture struck far deeper roots in Thrace and Macedonia than one is usually inclined to believe.⁵

⁵ See my paper 'Thrakisch-mykänische Beziehungen' in *Revue internationale des études balkaniques*, 1937, IV.

PLATE I



FIG. 1. ENTRANCE TO THE BURIAL PLACE, MAL TEPE, MEZEK (*see* p. 300)

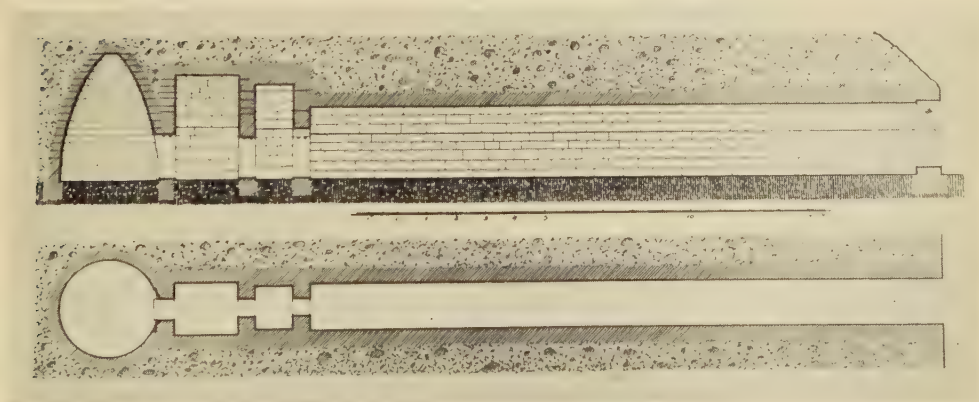


FIG. 2. BURIAL PLACE, MAL TEPE ; SECTION (*see* p. 301)

PLATE II



FIG. 4. VIEW THROUGH RECTANGULAR CHAMBERS, MAL TEPE, SHOWING
COFFIN-REST AT END (see p. 301)



FIG. 3. PASSAGE LEADING TO RECTANGULAR CHAMBERS, MAL TEPE
(see p. 301)

PLATE III



FIG. 5. BRONZE DOOR OF TOMB, IN ITS ORIGINAL POSITION (*see* p. 301)

PLATE IV



FIG. 6. CRESCENT-SHAPED IRON BREAST-PLATE (*see* p. 302)
(for enlarged detail *see* FIG. 7)

PLATE V



FIG. 7. ENLARGED DETAIL OF BREAST-PLATE (*see* FIG. 6)



FIG. 8. COFFIN REST, MADE FROM ONE HUGE STONE (*see* p. 301)

PLATE VI



FIGS. 9, 10. BRONZE CANDELABRUM, WITH DANCING SATYR—HELLENISTIC PERIOD (see p. 302)



FIG. 12. ENTRANCE TO DOMED CHAMBER, 1111 KALE, NEAR MEZEK;
(see p. 303)



FIG. 11. EGG-SHAPED BRONZE PAIL, WITH SOLDERED PALMETTES (see p. 302)



FIG. 13. GOLD BUCKLES CHARACTERISTIC OF THRACO-SCYTHIAN ART, MAL TEPE (see p. 302)

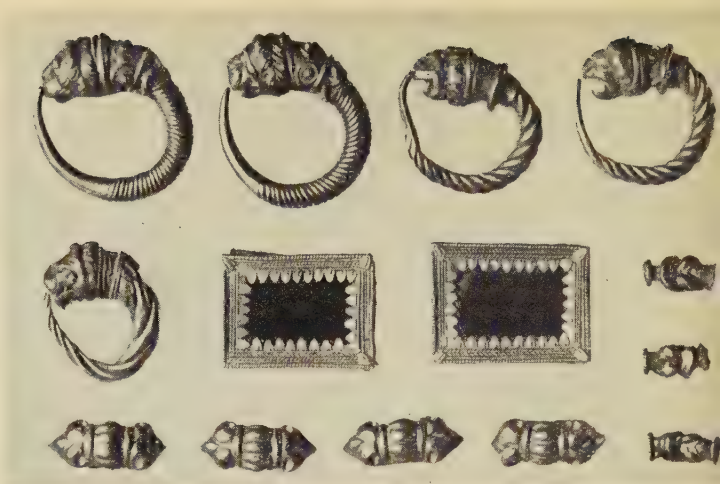


FIG. 14. GOLD ORNAMENTS FROM CINERARY INTERMENT, MAL TEPE (see p. 302)



FIG. 15. GOLD ORNAMENTS FROM CINERARY INTERMENT, MAL TEPE (see p. 302)

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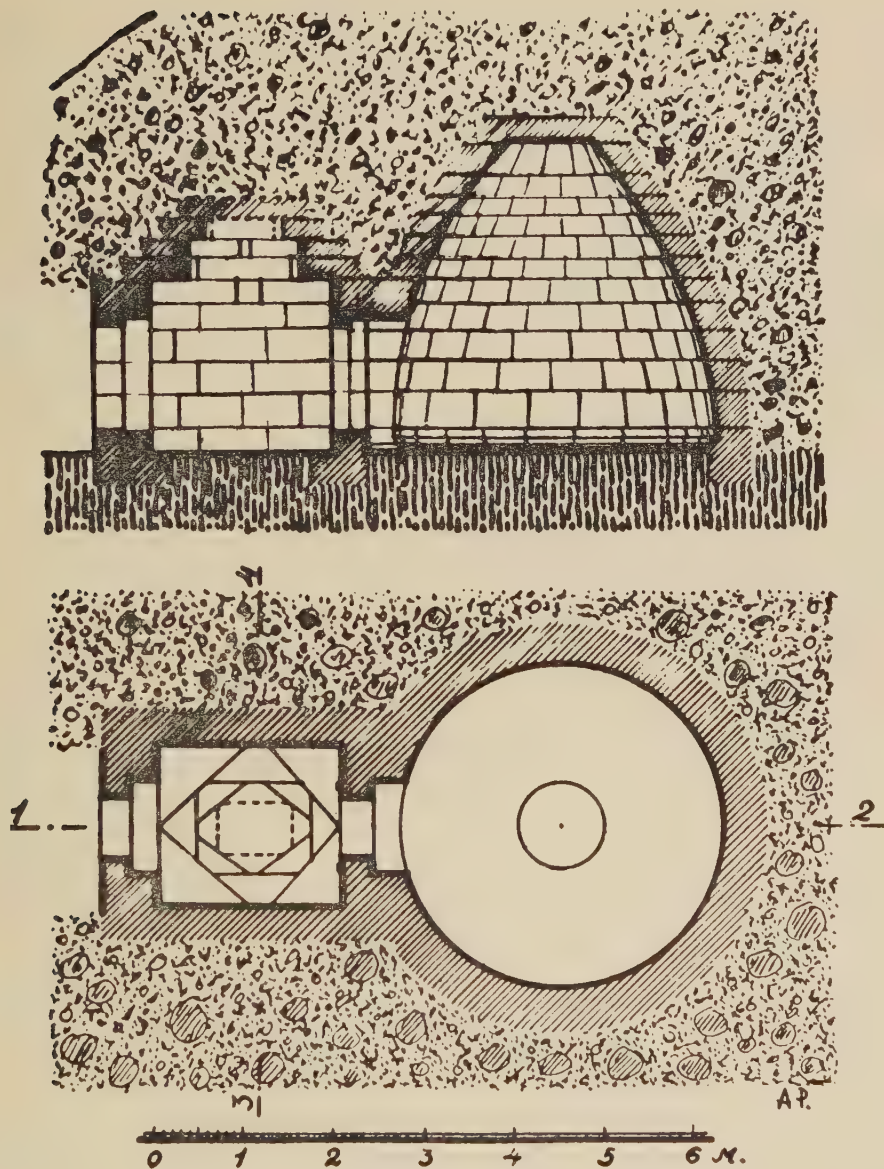


FIG. 16. SECTION OF TOMB, KURT-KALE, NEAR MEZEK (see p. 303)

The Mexican Indian Flying Game

by RODNEY GALLOP

THE first historical account of the JUEGO DE LOS VOLADORES of the Mexican Indians is to be found in Fr. Juan de Torquemada's *De la Monarquía Indiana*. The relevant passage, which internal evidence shows to have been written in 1612, is to be found in book 10 chapter 38. Preserving the complexities and angularities of the style it may be translated as follows :—

Among other forms of diversion, which these Western Indians had and with which they increased the solemnity of their festivals and gave pleasure to those present, was a manner of flying which they had, describing circles through the air, fastened by cords which hung from a stout, tall mast; and for the greater solace of the reader I will describe in words how it was done.

When they were to fly they brought from the mountains a very tall, thick tree, and removed its bark, leaving it smooth. It was very straight and of sufficient height to allow those who flew to describe thirteen circles round it. The artifice of this invention is a mortar which they fixed on the top of the pole, from which hung a wooden square like a frame about twelve feet across, firmly fastened to the mortar by four cords from the four angles of the square or frame. Between the mortar and the aforesaid square they tied four more ropes long enough to support those who hung from them, who at times were three or four or more from each. They made these ropes fast with strong nails so that they should not come away or slip round, bringing dissonance into the rhythm or rate of speed with which they flew. These ropes were passed through holes which were in the middle of the joists forming the square, which, that they might perform their service, they wound round the pole, with much care and harmony, taking them all together so that one should overlap the other, just as the warp is set up in a loom before weaving. These ropes ended at their lowest extremity in loops about a yard wide, and these came flush with the square when they wound them round the mast set up for the flight. In order to climb up to the aforesaid square, which was where the Indian flyers

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sat, they fastened a rope from the bottom to the top, making knots up the mast which served as steps and handholds so that they could climb up it with great ease and dexterity.

The Indians who flew were only those who were very skilled, and who practised many days before in order to reach dexterity and grace. The principal performers of the game were four who clothed themselves as various birds, that is to say some assuming the form of eagles, others of griffons and birds representing greatness and nobility. They had their wings spread to represent the true and natural flight of the bird ; they climbed to the top very lightly and agilely and with them eight or ten others richly and luxuriously clad with numerous bracelets and features, to add to the sound and show of their flight. All sat down in order on the square and in turn each climbed on his feet on to the mortar, and there they danced to the music of some instrument the changes that they knew, giving many turns like rope-dancers, each trying to outdo the other.

After having delighted the bystanders, who as though bereft of their wits were watching the things that were done, the four who represented the aforesaid birds fastened themselves round the waist, and let themselves hang from the ropes with which they feigned their flight, and with the weight of their bodies they moved the square round and made circles themselves, and the lower they came the more the circles made widened ; so that the second overtook the first bird and rope, and the third the second, and in this way the last came to finish like a bell in a very broad and round space, all competing with one another in speed and force, and thus reached the ground with great impetus and violence.

It was a sight to see what those flyers did, some holding the ropes with their feet, others with their hands, others made fast only by the rope round their waists. Those who remained at the top, when they saw that the flyers had accomplished half the course of their flight, seized the ropes and came sliding down them, one after another, making many sounds and playing clever tricks ; so that when the flyers reached the ground they arrived together with them. Then was the laughter and the contentment of all ; for if he who flew was not very skilful, as he descended with force and impetus, he landed on his hands or head instead of on his feet and was carried round on the ground until the rope lost the momentum which it had ; and in this way was the flight brought to an end, and they picked up the ropes in order to do the same again.

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I think that this invention was imagined by the Devil, to keep his false servants and devotees in fresher and more continuous memory of his infernal and abominable service ; for it was a reminder of the fifty-two years which they counted to their century (as we have already stated) at the end of which cycle of years they renewed, with the new fire which they took out, their pact and agreement which they had made with the Devil to serve him as many years again in the course of time to come. This is shown in the thirteen circles which they described : for although they do not exceed thirteen, taking into consideration the four ropes they made fifty-two, since each of the four flew thirteen circles.

This flight did not cease at the time of the Conquest and Implantation of the Faith in these Indies ; rather it continued until the monks, ministers of God, discovered the secret and prohibited most rigorously that it should be done. But after the death of the first idolaters who had received the faith, and the sons who followed them having forgotten the idolatry which it signified, they have returned to the flight and executed it on many occasions ; and like people who profit merely by the game and not by the intention which their forefathers had, they no longer care whether the *volador* frames are four-sided, and thus they make them six-sided, especially those that are very high, and hang from them six ropes and perform on them with great festivity and enjoyment, not caring whether the circles are only thirteen ; for according as the poles from which they fly are great or small, so are many or few the circles which they describe round them.

Of these I succeeded in seeing in the Plazuela de Palacio (which for a long time was called the Square of the Volador and is now called that of the Schools) one of excessive height, and in the time of the Viceroy Don Martín Enriquez in certain feasts which the Mexicans made of the Conquest of Mexico, renewing the memory of Hernán Cortés and all that had happened up to the taking of the city they flew several times, and at the end of the day and of the feasts, an Indian, who that day had distinguished himself by very special things which he had done, climbed on his feet on to the mortar, and when it appeared to him time to come after those who were flying, he threw himself down to catch one of the ropes of the flyers as he had done at other times ; but, either because he had in his hands a drum and some gourd-rattles, or because his head was heavy, as it was presumed, with the wine which he had taken, he did not succeed in catching it ; and although he bore wings they were like those of Icarus affixed with wax, and thus they were of

THE MEXICAN INDIAN FLYING GAME

no avail and he came to the ground before his companions and was dashed into a thousand pieces ; but not on account of this did they remove it (*i.e.* the pole), rather did they fly from it many other times until the aforesaid pole rotted in the part which was fixed in the ground.

Many others have been killed on others (*i.e.* poles) because they go up heavy-headed, and for this reason I was in agreement in this aforesaid city of Mexico with the Lord Viceroys that they should be prohibited ; but as alike in good and in evil things have no permanence, and as the other sage said : there are as many opinions as there are heads in the world. I have been told that they have resuscitated the game ; and in a festival which was held for Santiago in the part of Tlatelulco this past year of 1611 which is the second which has been held since the church was finished, an Indian fell from the top and died from the fall ; and in this style and manner others have died and other disasters and misfortunes taken place, and this is not enough for a warning, any more than it is to put an end to the bullfight seeing that every time they are fought men are killed and wounded in the ring ; for they must repeat the common adage that not because a ship is lost at sea do others give up navigation.

Long and prolix as it is, this extract is invaluable as being the only detailed description of the Juego de los Voladores in four centuries of Mexican history. The ceremonial is illustrated in both the Porfirio Diaz and Fernandez Leal (PLATE I) codices, which are supposed to antedate the Conquest. Bernal Diaz leaves a mention which is tantalizing in its brevity,¹ and Sahagún to whom we should look for both description and illustration does not allude to it. Torquemada's account dates from a time when the details had already undergone modification, and Clavijero, who furnishes the next reference some 150 years later, is content to summarize it and, with a rather fanciful illustration (PLATE II), to suggest that he lacks first-hand knowledge of the rite.² Only on two points does he supplement Torquemada, when he mentions that the man who danced on top of the pole waved a flag if he did not play a pipe and tabor, and that those who slid down the ropes sometimes sprang from one rope to another. The briefest

¹ Bernal Diaz del Castillo, *The Discovery and Conquest of Mexico*. Translated by A. P. Maudslay, p. 296. 'Let us go on and tell about the great number of dancers kept by the Great Montezuma for his amusement . . . and others who flew when they danced up in the air . . . '.

² Francisco Javier Clavijero, *Historia Antigua de México*, 1780, p. 236.

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mention by Madame Calderón de la Barca³ who in 1839 saw the Juego de los Voladores or something resembling it at Rio Frico on her way from Vera Cruz to Mexico City completes the historical bibliography of the subject.

The Juego de los Voladores still survives today in a region roughly corresponding to the Sierra de Puebla and the low country between it and the Gulf of Mexico. I have been fortunate enough to see it on three separate occasions, representing two distinct traditions.

It is at Papantla, a remote and inaccessible *pueblo* in the *tierra caliente* of Vera Cruz that the performance conforms most closely to the original. This is as it should be, for Papantla is in the heart of the Totonac Indian country, and there is reason to believe that the Volador was originally a Totonac rite, only later adopted by Otomi and Nahuaspeaking tribes.⁴ Its modern Totonac name of *lakas* signifies 'macaws', but it seems more likely that the bird originally represented was the *quetzalcoxcotli* or Crested Quetzal (*Gallinae Penolepe Purpurascens*), sacred to Xochipilli, god of dawn, which is frequently represented in ancient Totonac sculpture and still frequents the Sierra. The performers, who, on Corpus Christi day in 1936, were ten in number, have lost all their bird-costume with the exception of a little fan-shaped crest on their tall, pointed headdress and of embroidered bandana handkerchiefs fastened bandoleerwise round their shoulders, which may be a faint memory of wings. For the rest, the costume consisted of white shirts and scarlet knee-breeches with another bandana handkerchief fastened round the waist. The leader carried a pipe and tabor, the former, held in his left hand, being the three-holed instrument familiar in Europe, and the latter a small child's drum fastened to his left wrist. Nine of the *tocotines*,⁵ as they are called, were similarly dressed, but the tenth was a grotesque figure in ordinary clothes with

³ Madame Calderón de la Barca, *Life in Mexico*. (Everyman Edition, p. 47). 'In front of the house some Indians were playing at a curious and very ancient game, a sort of swing, resembling "El Juego de los Voladores"—"The game of the flyers", much in vogue amongst the ancient Mexicans'.

⁴ Cf. Dr. Walter Krickeberg, *Los Totonaca*. Mexico, 1933, p. 73.

⁵ I suspect the application of this name (which is said to be derived from the two alternating notes sounded by the ancient *teponaztli* drum) to the flyers of being relatively recent. Clavijero (*op. cit.*, p. 236) talks of 'an ancient dance, popularly called *tocotines*, so beautiful, honest and grave, that it is done in Christian churches at their feasts'. I have seen this dance performed in the church of Santa Catarina in the northern part of the Sierra de Puebla, and it had nothing to do with the Volador.

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a black wooden mask, a straw hat of 'gent's boater' type and a horse-headed stick on which he occasionally 'rode a cock horse'. He was evidently one of those Fools who, as described by Clavijero, accompanied the Indian dancers before ever European influence was exerted on them, 'imitating other races in their costume, or with disguises of wild beasts and other animals, and making the people laugh with their antics'.⁶ This Fool, by a modern confusion of ideas, is called Pilatos (Pilate), a term doubtless borrowed from the imported Dance of the Moors and Christians in which the infidel army is captained by Pontius Pilate.

We had missed those of the preparations for the Juego de los Voladores which are completed some days in advance, but we were able to learn full details of them. Some days before the ceremony several hundred Indians go out into the jungle and choose a tall and straight tree of the type for which they have no other name than *palo volador*. This they fell, strip and, shouting and singing, haul with liana ropes into the *pueblo*. Here it is planted in a deep hole into which a variety of sacrificial objects are first thrown: hard-boiled eggs, sugar-cane brandy, *tamales* (a local food), pieces of cloth and a chicken. They dance before the pole and also whip it, hoping by this mixture of propitiation and intimidation to dissuade the pole from 'devouring men'.

When we arrived in Papantla on a clear, rain-washed June afternoon, the pole was already in position together with the gear as described by Torquemada, the mortar-like cap (called *Manzana*) being not more than a foot in diameter, and the frame, despite the early missionaries, four- and not six-sided (PLATE III).

When the *tocotines* entered the plaza they made for the church before the porch of which they danced, first in line and then in a circle to the piping and drumming of their leader. This concession to Christianity completed they repeated their dance before and around the pole. Next, five of them climbed the pole, including the leader and Pilate. The former gingerly seated himself on the *manzana* while the other four ensconced themselves on the four sides of the frame, facing inwards. The others remained at the foot of the pole, round which they danced at intervals in order to ward off fear and all evil influences. The leader then began to play his instruments, swaying from side to side and at times leaning over backwards so that his head nearly touched the frame. Then, rising to his feet and never ceasing

⁶ Clavijero, *op. cit.*, p. 235.

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his music, he began to dance in the Indian fashion with little jumps and stamping steps, slowly rotating on his miniature platform.

The flight began when the flyers at a concerted gesture flung themselves backwards into space, their weight unwinding the ropes which had been wound round the top of the pole, spinning the cap and frame so that they were carried round in ever-widening circles to the ground. There were more than thirteen circles, and the leader remained playing on the *manzana*, repeating his back-breaking contortions as he was swung round.

Torquemada does not exaggerate the danger of the performance. Bystanders were scornful of this year's leader on the ground that in his dance he did not leap ten inches into the air. Yet they were ready to admit that one who did so two years before was dashed to the ground and killed. Some ten years ago the pole snapped and all five performers met their death. The leader, different each year, is chosen a year in advance, and during the intervening time is made much of and piled with food, drink and all he may desire, a custom which connects him unmistakably with certain sacrificial victims of pre-Cortesian Mexico, that sacrificed in the guise of Tezcatlipoca, for instance.

Further to the north, three or four days on horseback from Papantla I have twice seen the Juego de los Voladores performed in a slightly different manner by Otomi Indians of the hamlet of Huehuetlilla (State of Puebla). Their pole is taller and stouter, the cap (here called *tecomate*, Aztec for 'gourd') two feet across and the frame hexagonal. There are six flyers, each of whom takes it in turn to dance at the top of the pole, but none of whom remain there during the flight, the musician continuing his drumming and skirling as like the rest he is whirled round head downwards in ever-widening circles (PLATE IV).

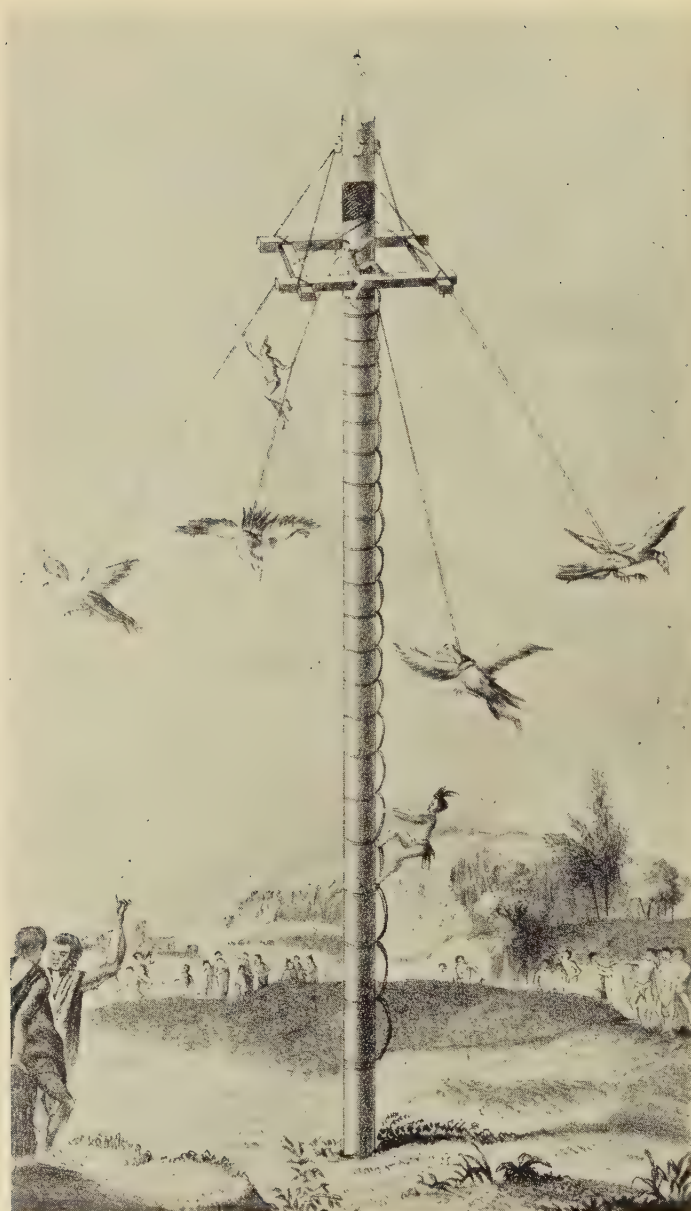
Here, too, there is an extraneous character not mentioned by Torquemada. This is a man dressed as a woman and known by the name of Malinche, the Aztec interpreter and mistress of Cortes. This figure may have been borrowed from the Aztec and Zapotec dance of the Conquest in which she appears with more obvious justification. She may none the less be the avatar of some earlier Man-Woman. There is nothing in the Malinche of history to explain the gourd bowl and bandana handkerchief which her representative holds in his hands. At Papantla, however, we saw on the same occasion as the Volador a Man-Woman called 'La Maringuilla', figuring in the so-called *Danza de los Negritos*. Like the Malinche of Huehuetlilla 'La Maringuilla' carries a gourd bowl and handkerchief, the purpose of which is here



THE FLYING GAME DEPICTED IN THE FERNANDEZ LEAL CODEX (see p. 309)

Owing to Aztec ignorance of perspective the square frame and four flyers are shown vertically instead of horizontally.

PLATE II



THE FLYING GAME
DEPICTED IN CLAVIJERO'S 'HISTORIA ANTIGUA DE MEXICO' (see p. 309)

PLATE III



THE BEGINNING OF THE DESCENT AT PAHUATLAN (*see* p. 311)

At the bottom left the musician is seen already playing his pipe and tabor, and above him is the skirted figure of Malinche

PLATE IV



THE MUSICIAN AT PAHUATLAN WHIRLED THROUGH THE AIR NEAR THE END OF THE FLIGHT
(see p. 312)

THE MEXICAN INDIAN FLYING GAME

revealed, for in the bowl is a little articulated snake which the handkerchief covers until the end of the dance, when the snake is thrown on the ground and the Indians make a pretence of beating it to death. The snake, as is well known, is the symbol of lightning, rain and fertility throughout Central and South America, and the title of 'Snake-Woman' was applied at Montezuma's court to a high official of the male sex.

In regard to the interpretation of the Volador there is no reason to doubt Torquemada's explanation that the thirteen circles described by each of the four flyers were regarded as making up the fifty-two years of the *xiuhthonalli* cycle. Moreover, one of the Otomi flyers remarked to us that although they were six in number they should properly be four, for they represented 'the four birds who flew with the four winds to the four points of the compass', thus showing that each of the birds was associated with one of the four 'world directions' which played so important a part in Indian mythology, and to each of which thirteen of the years in each cycle were apportioned.

A more detailed attempt to explain the symbolism of the rite is made by Dr Walter Krickeberg, who bases his theory on the fact that in the four illustrations of the Volador ceremony in the two Codices already mentioned it is shown in close association with the arrow sacrifice (*tlacacaliztli*), in which the victim is fastened to the top of a ladder to undergo the traditional martyrdom of St. Sebastian. This ritual belonged to the cult of the earth and vegetation gods, more especially to that of Tlazolteotl, goddess of the earth and moon, and Xipe, god of vegetation. 'The bird disguise of the flyers' writes Dr Krickeberg, 'recalls the Mexican notion that the souls of warriors killed in battle and of sacrificial victims came down to earth at midday after terminating their service with the sun, and that they assumed the shape of birds and butterflies sucking the honey of flowers . . . Possibly they intended to represent with the Juego del Volador the descent of the sacrificial victim'.⁷

This is scarcely convincing, nor is it rendered more so by Dr Krickeberg's emphasis on two coincidences: the first that the pointed

⁷ Krickeberg, 74. This belief is far more closely symbolized in the Aztec dance, described by Durán, in which, while the young men danced round the statue of the goddess Xochiquetzalli beneath a bower of roses in the shade of flowering trees within the temple precincts, boys disguised as birds and butterflies climbed the trees and pretended to suck honey from the flowers, and other dancers disguised as gods made pretence to shoot them with blow-guns.

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headgear of the *tocotines* is (as he says) Huastecan, and the Huastecs were the first victims to be put to death by the arrow sacrifice ; and the second that in Aztec lore the souls of dead warriors and victims were thought to dwell on the eastern coast of Mexico, *i.e.* in the region where the Volador originated. Even less convincing is the attempt of Mr W. C. MacLeod, on no particular evidence, to relate the Volador to the North American hook-swinging ritual.⁸

In conclusion it should be stated that the Juego de los Voladores is also practised in Guatemala whither it appears to have been brought by a migration from the region of Quiotepec south of Cholula (State of Puebla) and therefore not far from the habitat of the Totonacs. Here it took place after the cocoa harvest, the idol of the cocoa-god being set at the top of the pole. There were only two flyers (as there are today in Guatemala), one carrying a bow and arrow and the other a fan and mirror, possibly representing a warrior and a merchant respectively. Sixty men with painted faces or bird-masks danced round the pole.⁹

⁸ W. C. MacLeod, ' Nature, Origin and linkages of the rite of hookswinging with special reference to North America ', *Anthropos* (1934) XXIX, 1, 2, p. 15.

⁹ Krickeberg, *op. cit.*, p. 161.

The Ruined Towns of Somaliland*

by A. T. CURLE

PERIODICAL reference to the 'Mysterious Ruined Cities of Somaliland', citing them as an 'unsolved riddle of Africa', have appeared in books and articles from time to time.¹ The majority of these ruined towns lie in the west of British Somaliland, within the present administrative district of Borama, or across the frontier in the adjacent areas of Ethiopia, roughly half way between the ancient port of Zeila and the walled town of Harar.² The Somalis of today can throw no light on their history.

A series of investigations were carried out by Captain R. H. R. Taylor and myself during the week-ends available in 1934. The sites of ten ruined towns were already more or less vaguely known, while eleven new sites, off the beaten track and overgrown with bush, in both Ethiopia and British Somaliland, were one by one traced and visited as leave permitted. Circumstances did not permit of excavation beyond the clearing out of two houses and the sinking of a trial trench across a refuse heap, but notes were made and a careful record kept of all surface finds. The representative collection of relics brought home and presented to the Department of Ethnology of the British Museum amounted to several thousand items, mostly fragmentary. The numerous types of objects were classified and made it possible to assign the period of occupation of the towns to the 15th and 16th centuries.

The sites investigated can be divided into four groups (*see* MAP) which, although geographically distinct, are yet sufficiently homogeneous in character to enable them to be assigned to the same

* A debt of gratitude is due to Lieut.-Colonel E. H. M. Clifford, C.B.E., M.C., and the late Fitaurari Tessama Banti, Commissioners of the British Somaliland-Ethiopia Boundary Commission who afforded us every facility and rendered it possible to eliminate the question of frontiers as far as the investigations were concerned.

¹ See also 'An unsolved Riddle of Africa: mysterious ruins in Somaliland', by John Parkinson. *Illustrated London News*, 26 January, 1935.

² Azais et Chambard, *Cinq Années de Recherches Archéologiques en Ethiopie*, part 1, chap. 2.

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civilization. The first group consists of the coastal town of Zeila and the island of Saad-Din which lies about four miles to the north. The town of Zeila is, of course, still in existence today, although its houses are tumbling down and it has shrunk to a shadow of its former importance. Until eclipsed by the adjacent French town of Jibuti it was the chief centre of export for the products of Ethiopia. The Franco-Ethiopian railway now takes the place of the age-old caravan tracks. The District Officer's house to the east of the town, just outside the line of the old walls, has been built on the ancient refuse heaps, and it is possible to pick up around the house quantities of fragments of Celadon porcelain, and pieces of Arab pottery and glass. It is impossible to get any idea of the plan or construction of the old town as the site has been in continuous occupation for 2000 years.

The island of Saad-Din, now uninhabited and waterless, contains the ruins of many houses with court-yards, spaced far apart, their walls, however, usually not remaining for more than a foot above the ground. A cellar or tank with an arched roof is the only remaining building. All the refuse heaps and relics are found in the southwest corner of the island, and no heaps are visible on the surface near the ruins. Near the refuse-heaps, however, the line of a wall is traceable for several hundred yards.

In the second and largest group are found thirteen towns lying on both sides of the British Somaliland-Ethiopia boundary some hundred miles south of, and inland from, Zeila; namely Amud, Abasa, Au Boba, Au Bare, Derbiga Adad, Biyo Dadera, Damerakhad, Derbile, Gogesa, Qorgab, Hasadinle, Kabab, Musa Hasan, the sites of a religious settlement at Sheikh Barkab and of a single house or villa at Aroqolab.³ They are situated some 5000 to 6000 feet above sea level. The four principal towns of this group appear to have been Abasa, Amud, Au Bare and Gogesa. Each of these is represented by the ruins of some 200 houses. The size of the remainder of the towns varies from upwards of 20 houses. The houses in the larger towns are still standing with walls in some cases as high as 20 feet. Buildings, which because of the presence of a 'mihrab' are unmistakably mosques, are usually in the best state of preservation. In the smaller towns such as Hasadinle the walls remain to a height of only one or two feet. All the cities are overgrown with bush, and shrubs grow out of the walls. The air-photograph (PLATE I) shows the site of the town of Amud. The

³ Place-names are spelt in accordance with the R.G.S., II system.



THE RUINED TOWNS OF SOMALILAND

refuse heaps stand out clearly as open mounds on the outskirts of the buildings ; a trial trench struck across the largest of these revealed a depth of 4 feet 6 inches of ashes, bones, and general refuse. These towns, although within easy reach of wells in the various river-beds, are always a little distance away, probably on account of mosquitoes.

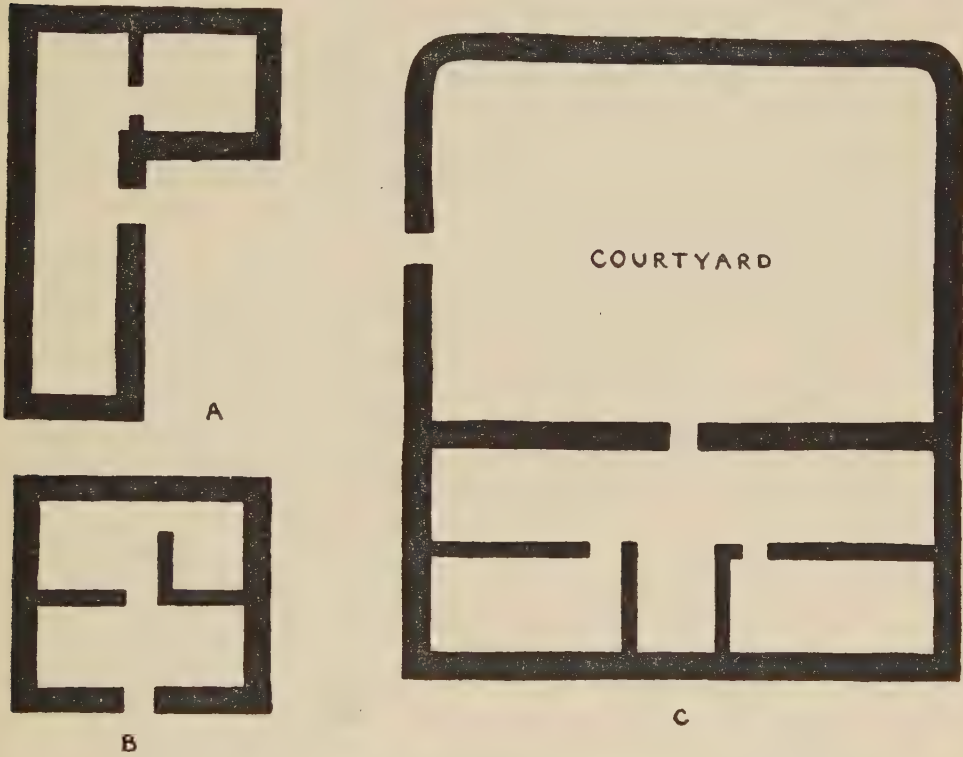


FIG. 1

A, HOUSE AT EIK. B, HOUSE AT AMUD. C, LARGE HOUSE WITH COURTYARD AT EIK

The country in the vicinity is generally hilly with thick bush in the valleys. Only a little agricultural activity could have been possible, but stock in the form of cattle, camels, sheep and goats thrive at the present day and therefore probably did so in the past. The climate by day is mild and pleasant, the altitude however rendering it unduly cold at nights from November to January, and forming an agreeable contrast to the hot dusty plain behind Zeila.

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The third group is a small one comprising only the towns of Eil Humo and Eik. They lie about a hundred and twenty miles inland, south of Berbera on the flat plateau 4000 feet above sea level. The houses appear to have been similar in construction to those of the former group. The water which must have supplied the town of Eik has dried up, and even boring to a depth of about 300 feet has failed to find any on several adjacent sites.

The fourth group is a settlement at Rugayi, near Dagahbur in Ethiopia, over 200 miles inland and south-southwest of Berbera. It consists of an ambitiously planned mosque with the site of a nomadic settlement under the shadow of the walls on the west side. It lies well away from the other ruined towns and was probably a religious settlement ; but the pieces of Celadon ware, steatite plates, and other relics found justify its inclusion along with them.

The plans of the houses noted on all the sites indicate that their dimensions were governed by the difficulty of obtaining local supplies of roofing timber exceeding nine feet in length, a difficulty still encountered today. Some of the plans adopted for houses of more than one room are shown on FIG. I. The average house was well-built, and, in spite of its somewhat dark interior, must have been cool during the day, and warm at night. The houses varied in size from a single room measuring on plan 9 feet by 10 feet, to a four-roomed mansion with a courtyard (FIG. I, c). The walls were usually about 2 feet to 3 feet thick, and were well built of roughly dressed stones laid in alternate courses of large and small material bonded with termite earth (PLATE II). The partition-walls were not tied into the main walls. It was difficult to gauge the original height of the rooms, but in some cases that would appear to have been about 10 feet. There were no windows in the modern sense of the word, and lighting and ventilation, other than from the door, must have come in through small rectangular holes, about one foot in height, set in the walls about 8 feet from the ground. The floor was of beaten earth in all the houses that were investigated. The roof was probably formed of brushwood, laid over a framework of rafters of local wood, and covered with earth ; this theory is supported by a study of the earth in the houses we were able to clear out. Square or triangular-headed niches (PLATE II) were found in some of the walls and must have served as cupboards. There were no signs of doors having been fixed and it is probable that a cloth or skin, attached to pieces of timber laid horizontally, serving as a lintel, covered the aperture.

THE RUINED TOWNS OF SOMALILAND

On the majority of sites the mosques were the most ambitiously planned buildings and alone appear to have been constructed with lime mortar. The 'Mihrab' of the mosque at Amud has a pointed arch and outside the mosque proper was an antechamber containing a storage well 8 feet deep and lined with plaster to hold the water for ablutions. The mosque at Abasa measured some 60 feet by 54 feet and contained twelve unevenly placed pillars of varying forms; some were round and surmounted by built rectangular capitals, others rectangular with the angles recessed, cruciform in plan, as shown in PLATE III. No arches appear to have sprung from these pillars, which must accordingly have supported a brushwood roof. Some of the pillars had baulks of wood built into them about three feet from the ground which can be seen in the tall pillar in the centre of PLATE III. Their purpose was probably to facilitate the attachment of drapery or hangings. The 'Mihrab' of this mosque was formed of a series of four recessed rounded arches but unfortunately the back wall has fallen away. The mosque at Rugayi is perhaps the most elaborate building of all and is more carefully constructed than any of the others. It consisted of a rectangular building with an inner court, the wall of which is pierced on each face by two arches, the ambulatory having been roofed over with sun-dried tiles while the court was probably left open. On both occasions I went there it was unfortunately impossible to take any measurements. Between 1930 and 1934 two of the arches collapsed and the remainder are probably in a perilous state by now, unless the Italians have restored them.

In none of the towns did there appear to be any town-planning or orderly arrangement of the houses. The sites of the inland towns were not chosen for defence, nor were they surrounded by protecting walls. The only uniformity of plan is shown in the positions of the refuse-heaps and graveyards, which are always on the edge of the towns.

The cemeteries contain no inscriptions and no elaborate tombs, except at Au Boba, where a conical shaped tomb has been erected over what is reputed to be the grave of the name sheik of the town⁴ (PLATE IV). The usual type of grave is oriented east and west, thus probably allowing the body to lie on the right side with the face turned towards Mecca. The graves are outlined with stones set on edge and occasionally there is a low uninscribed headstone.

⁴ A son of a Sheik Boba is mentioned as being one of the Mohammedan commanders with Somalis under him in 1529. Ahmad ibn Abd Al-Kadir, *Histoire de la Conquête de l'Abyssinie*, XVI siècle, p. 118. (Publications de l'École supérieure des lettres d'Algers).

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A large quantity of objects of porcelain, pottery, glass, metalwork and stone were recovered from the surface of refuse-heaps and amongst the ruins of eighteen towns, approximately similar types being found in all four groups of sites.⁵

Fragments of Celadon vessels were found on every site, and pieces large enough to date have been assigned to the Sung and Ming dynasties in the region of the 12th to 15th centuries. Fragments of blue and white porcelain came to light on every site ; these while difficult to date are generally attributed to the 16th and 17th centuries. One fragment of thin ware, blue outside, from Abasa, has been identified as Ming of the 16th century. The base of a grey glazed pottery vessel from Zeila with a floral design has been attributed to the 17th century.

One piece of a small bowl from Aroqolab with a fine green internal glaze is believed to be Egyptian of the 15th century or earlier.

Quantities of fragments of various types of brown, blue, grey and white, and mottled coloured glazed pottery came from all the sites and it is impossible to assign them to any period more definitely than from the 13th to the 18th century. A group of rather larger fragments from Saad-Din island are put down as suggestive of the 15th century. One piece of delicate cream-coloured ware, also from Saad-Din island, has been classified as probably 12th century. Numerous pieces of grey-biscuit porous vessels were recovered, some bearing interesting patterns resembling Coptic interlacing work. It is naturally impossible to assign a period to these as such vessels are in use down to the present day in the Near East, the majority coming from Spain and India, but their use is confined to the Asiatic and European population.

All the sites yielded a quantity of coarse hand-made pottery sometimes on the refuse-heaps associated with the Chinese and other wares. Pieces of a variety of types of vessels were found, superior in design and construction to those in use by the natives of Somaliland today ; they included a plate-like type with small handles, pottery, water-bottles, etc. The only complete item was a flat pottery lid measuring 6 inches across and $\frac{3}{4}$ inch thick with a small raised semicircular handle in the centre. Some of the coarse pottery from Abasa and Saad-Din island had the appearance of having been wheelmade, a technique no longer in use in Somaliland.

A small roughly-made pottery lamp came to light during the digging out of a house at Qorgab. It is primitive in design, being oval-shaped

⁵ I am indebted to Mrs E. P. S. Shirley for her help in the collection of objects from Zeila and Saad-Din island.

PLATE I



THE RUINED TOWN OF AMUD (*see p. 316*)

The refuse-heaps are shown by the bare patches in the immediate vicinity of the town.
ph. *Royal Air Force Official-Crown Copyright reserved.*

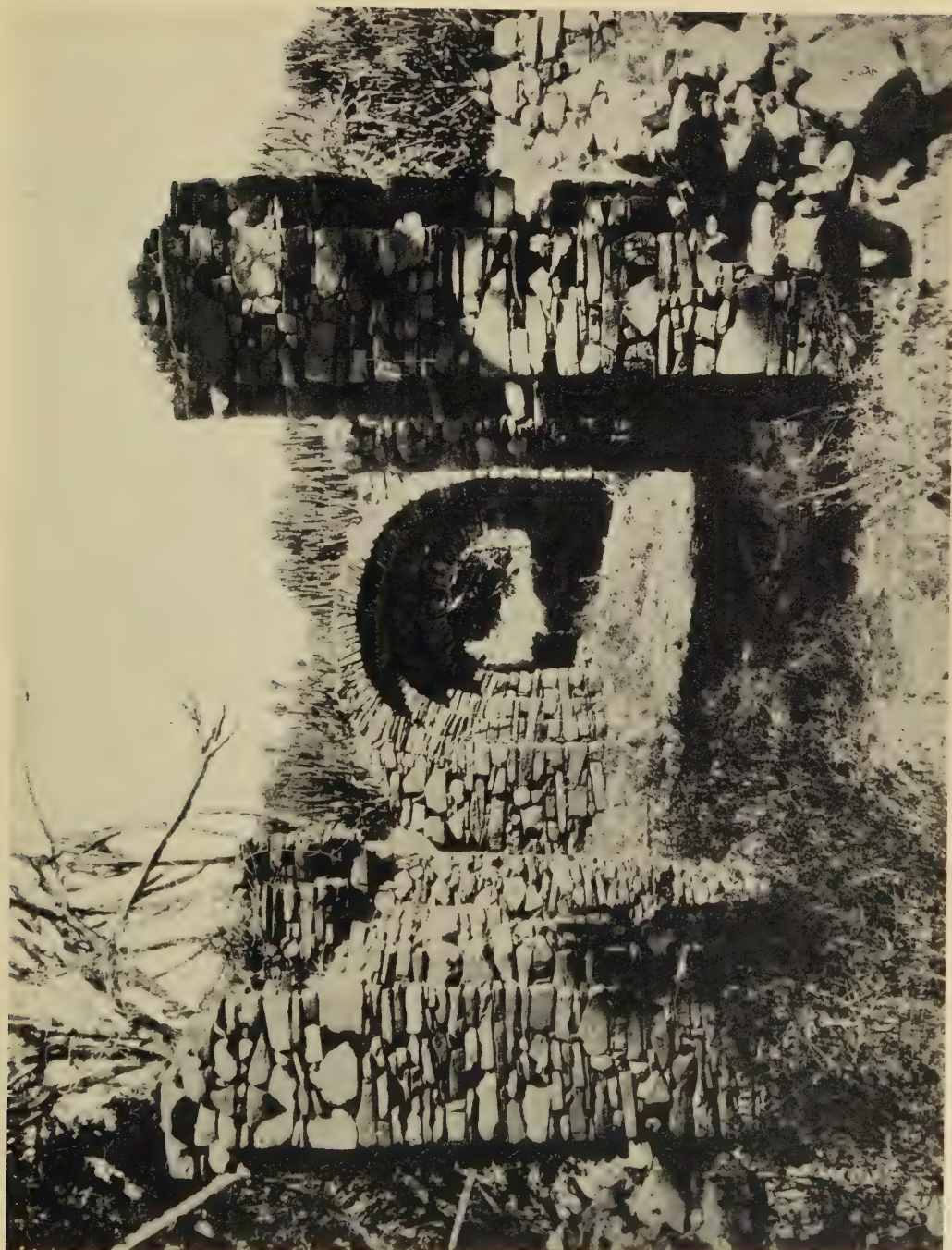
PLATE II



TRIANGULAR HEADED NICHES IN THE WALL OF A HOUSE AT AMUD (*see p. 318*)

ph. Captain R. H. R. Taylor

PLATE III



THE MOSQUE AT ABASA LOOKING TOWARDS THE 'MIHRAB' (see p. 319). A RECTANGULAR PILLAR WITH RECESSED ANGLES ON THE RIGHT
ph. Captain R. H. R. Taylor

PLATE IV



THE TOMB OF SHEIKH AU BOBA (*see p. 319*)

THE RUINED TOWNS OF SOMALILAND

with a flat base and a spout protruding upwards from one end to take the wick. Traces of soot were found in the spout.

Pieces of burnished pottery were found on most of the inland sites. The fragments were brownish or black in colour and in some cases showed simple incised ornamentation. One piece, the ribbed neck of a black jar, was found 4 feet 6 inches below the surface in the refuse-heap at Amud. It is similar in type to a jar I saw used for storing honey in Harar in 1935. No burnished pottery is in use in Somaliland today, but it is in general use in Ethiopia.

All the sites produced a number of fragments of glass vessels ; they were thin and of various colours including blue, yellow, and green. It is impossible to date the fragments beyond two pieces, one with a blue line across it and the other with white lines and raised dots about the size of a pin head, which are attributed to a period not later than the 15th century.

One small glass bottle blackened by contact with fire, but whole except for the mouth, was picked up at Zeila associated with Celadon ware.

A number of beads came from the various inland sites and were specially prolific at Sheikh Barkab mosque, where they appear to have been left as offerings. The following types were identified⁶:—Varieties of glass trade beads at the latest 100 years old, others earlier ; cobalt blue glass rings similar to Bechuana and Mashona beads ; ‘ cane ’ beads of drawn glass in white, green, pink, blue, and yellow from seven sites, the yellow similar to a type from Malay and early in date ; one glass segmented bead ; some round rock crystal beads typical of African make ; two rock crystal ones with a hexagonal barrel ; cornelian beads more akin to those from Romano-Egyptian sites than African. One agate bead was found. Some small flat ostrich-eggshell and marine shell pierced disks were recovered whose technique gave the impression that they might have come from the sites of an earlier civilization altogether.

All the sites yielded fragments of glass bangles. Unfortunately it is impossible to date them. They vary from simple black or blue drawn glass, plain or simply ornamented, to elaborate and highly coloured varieties made in three pieces. Samples of twisted glass bangles in variegated colours were included in the fragments.

⁶ I am indebted to Mr H. Beck, F.S.A. who very kindly examined the whole collection of beads and identified them.

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Portions of steatite platters were found on all the inland sites. They were about an inch thick, with a narrow, shallow raised rim. When complete they must have measured about a foot in diameter and in most cases they showed signs of considerable wear. Pieces of the base and rims of steatite bowl-shaped vessels also came to light ; they varied from $\frac{1}{2}$ inch to an inch in thickness. One fragment of the rim of a vessel was decorated with small holes incised within circles.

Stone finds included 43 objects of steatite and other soft stone, probably spindle-whorls or in some cases beads. They vary in size and shape, some being conical, others flat, but all pierced with a hole in the centre ; their diameter varies from $\frac{1}{2}$ inch to $1\frac{1}{4}$ inches. Three pottery whorls were also discovered.

Seven round stones of limestone and quartz were revealed together on the floor of a house which was cleared out at Qorgab ; they varied in weight from 6 to 28 ozs. and bore marks indicating their use as hammer-stones. They were lying in close proximity to a steatite platter. A similar collection of four pebbles was discovered on the floor of a house at Abasa.

Six coins were recovered and it has been possible to identify two of them from Derbi Adad as belonging to Kait Bey, Sultan of Egypt,⁷ 1467-1495. The other four are undecipherable. Two gold coins were found by a Somali woman herding goats amidst the ruins of Eik in 1935 ; they were purchased by a European official for a rupee and sold to Messrs Spink in London for £2 10s. on their gold value. Fortunately I was able to get impressions and they have been identified as having been minted in Egypt in the reign of Selim II, 1566-1574.⁸ Coins are often reported to be found at Eik following on rain and there is little doubt that pieces from hoards come to light from time to time.

One silver finger-ring was found at Au Bare ; it measured about $\frac{1}{4}$ inch wide and was ornamented with a debased pattern of interlacing. Five other pieces of metal rings of various types came to light.

A single barbed iron arrowhead $2\frac{3}{4}$ inches in length was picked up at Abasa.

A bar, probably copper, 3 inches long and $\frac{1}{4}$ inch thick, rounded at one end, came from Qorgab.

⁷ Kait Bey was one of the Mameluke Sultans of Egypt. His reign was a continual struggle with the Ottoman invaders with whom he eventually compromised.

⁸ Selim II, an Ottoman Sultan who led an expedition against the Yemen.

THE RUINED TOWNS OF SOMALILAND

A quantity of black obsidian flakes and small cores were common on the surface of some inland sites, especially at Derbiga Adad.⁹

Ostrich eggshell appeared on all the sites.

Two fragments of mother-of-pearl shell came to light; one, clearly the portion of some ornament, had a design of incised rings.

A piece of wood 3 inches long, with the appearance of having been turned, was found at Amud and might have been half the handle of a knife.

A disk of pottery, round in shape and $\frac{3}{4}$ inch in diameter and over $\frac{1}{2}$ inch thick, glazed on both sides, came from Amud and has the appearance of being a playing piece. A steatite disk of about the same dimensions, and some slightly larger, were found on other sites.

The general weight of datable evidence indicates that these inland towns flourished between the 15th and 16th centuries. It is impossible to say without excavation whether there were only one or several occupations during that period. The finds at Saad-Din island tend to be earlier than those from the inland sites and point to a date as early as the 12th century.

The size and number of the towns, the comparatively elaborate mosques, and the lack of defensive precautions show the existence of prosperous and peaceful Mohammedan communities.

The Celadon porcelain, Egyptian glazed pottery, thin glass fragments, porous water-vessels, mother-of-pearl ornaments and coins from Egypt, all indicate that their users must have been a comparatively cultured people carrying on a trade which had connexions with the outside world from Egypt on the one hand to China on the other. The interlacing pattern on the silver ring and the design of incised circles on the mother-of-pearl ornaments indicate a connexion with Coptic art. The steatite platters and vessels and obsidian chips found show that primitive utensils must have been used in conjunction with the modern. Travellers' accounts tell of slaves, gold, ivory and musk which was

⁹ Captain Taylor observed similar types of obsidian flakes at Aghresalam in the Sidamo province of southern Ethiopia in 1936. Reference to his interpreter revealed the fact that lumps of obsidian were brought by caravans and sold in the market to be split up for scraping and cutting purposes. [I have read somewhere that freshly-struck flakes of flint (or obsidian ?) were used by barbers as razors for shaving. The statement was made in a book of travels. Unfortunately I did not make a note of it, and cannot now remember the source. Perhaps some reader may be able to trace it? If the practice still survives anywhere it would be worth while recording in this journal. O.G.S.C.].

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exported from Zeila, and there can be no doubt that the finds give a clue to what was received in return.

The numbers of spinning weights or whorls indicate a considerable spinning of wool or cotton, presumably for clothes. The cotton or wool was probably brought from Ethiopia where the same process of spinning is carried on today. Coffee beans found in the refuse-heaps, and the grind-stones from other regions go to indicate further that a comfortable standard of living was attained. The bones found in the refuse-heaps show that camel and sheep or goats formed items of diet ; the numerous cooking pots would be used for stewing while the hammer-stones would serve to break up the bones for marrow. One can picture the food being poured from the coarse cooking-pot on to the Celadon bowl and served to the family sitting round dipping their fingers into the bowl. The saddle-querns and grind-stones show that cereals were used and the product was no doubt made into some sort of bread. The finding of coffee beans indicates that coffee was taken either as a beverage or fried in fat in the berry. If taken as a beverage one can picture it being served in Chinese, Arab or Egyptian cups. Cool drinking water would be available from porous jars hanging from the roof. The flat steatite platters would serve the cook as a board on which to prepare the bread or meat and although no knives were found the cuts on the steatite platters point to their use.

The history of Ethiopia throws light on the events which occurred during the 15th and 16th centuries in the area in which these towns are situated. Although none of the inland sites investigated can be identified for certain with any one mentioned in the histories or chronicles, it seems probable that they formed part of the seven Mohammedan provinces which existed in the 14th century in the east and south of Ethiopia, and two of these, namely Hadya and Adal,¹⁰ can be recognized as the ancient counterpart of Harar and Zeila. As most of the ruined towns lie between Zeila and Harar it is impossible to say to which of these provinces they belonged but one can clearly associate them with the trade of Zeila, which served as their port.

The relationship between the port of Zeila and its adjacent island of Saad-Din is not clear ; probably the island served as an overflow and auxiliary trading base for the merchants and would certainly offer security from land attack.

¹⁰ *Histoire des Guerres d'Amda Syon, roi d'Ethiopie*, translated by Jules Perruchon, p. 5.

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There are many references in early chronicles to the penetration of the Moors or Mohammedans, and one account describes these immigrants as a people pre-eminently commercial who had at an early date settled along the coasts of the Mediterranean and Indian Ocean and established centres of commerce for the transport of merchandise from and to India. The kings of Abyssinia to whom their presence was necessary for the exchange of merchandise, gave them land on which they lived peacefully and occupied themselves with their own affairs ; from being tributaries they became in time masters of the provinces they occupied and refused to pay the taxes due unless the army came and took it by force.¹¹

In 1402 Zeila was besieged and taken by the Ethiopians ; the defender Saad-Din was killed. He is buried in the southeast corner of the island which bears his name. The Ethiopian occupation was not of long duration and the 15th century saw the start of a series of constant raids and wars between the Mohammedan provinces, with Zeila and Harar on the one side and the Christian Ethiopians on the other. It must have been during the intervals between these wars that the inland towns flourished.

In 1503 the traveller Bartema visited ' Zeila in Ethiopia ' and comments on the great extent of its commerce and the marvellous abundance of gold, iron, and the innumerable black slaves sold for small prices. They were carried into Persia, Arabia Felix, Babylonia of Nilus, or Alcair or Mecca.¹²

Another account mentions that the king of Ethiopia, Lebna Dengel (1508-1540) early in his reign sent some merchants into the country of the Mohammedans with the gold, ivory, musk, slaves and much wealth which belonged to him. They sold the merchandise in Mohammedan territory and then crossed to Aden.¹³

In 1516 Zeila was burnt by the Portuguese fleet under Lopez Suarez Alberguiera and the following year the Turks, who under Selim I had overrun Arabia, seized Zeila, established a customs house and fitted out a fleet of small cutters to attack merchant vessels.¹⁴

¹¹ Marius Saineano, *L'Abyssinie dans la seconde moitié du XVI siècle ou le règne de Sarsta-Dengel (Malak-Sagad)* [1563-1594], p. 25. Leipzig, 1892.

¹² John Winter Jones, *The Travels of Ludovico di Varthema*, p. 86. Hakluyt Society, 1873.

¹³ Ahmad ibn Abd Al-Kadir. *Histoire de la Conquête de l'Abyssinie*, p. 70. (Publications de l'École supérieure des lettres d'Algers).

¹⁴ E. A. Wallis Budge, *History of Ethiopia*, p. 330.

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The Turks being Mohammedans reached a 'modus vivendi' with their co-religionists, the people of Adal.

In 1527 Lebna Dengel, king of Ethiopia, invaded the country of Adal, burnt the towns and laid waste the king's castle in Zankar.¹⁵ The Mohammedan invasion of Ethiopia followed and by 1540 the greater part of the country was in their hands, but by 1544 they had been driven out and their leader Mohammed Gran killed by the Ethiopians under the Emperor Claudius who attacked the country round Harar and destroyed the towns. The Mohammedans rose again and were finally defeated in 1575 and, as one account states, all danger to the eastern frontiers of Abyssinia was over, both from the Gallas and the Moors.¹⁶ 'The kingdom fell partly into the hands of the Gallas, partly into the power of the Turkish janissaries who guarded the coast. Of all this powerful kingdom, which had been the terror of Abyssinia, only the capital Aoussa remained. Not long after its name too was forgotten'.

It can be conjectured that the towns of Adal burnt by Lebna Dengel in 1527 comprised certainly some of these ruined ones of Somaliland. Others may have met with a similar fate at the hands of Claudius in 1544. No other group of towns is known to exist near Zeila and with the weight of evidence of the finds it is safe to associate the principal group as forming part of the kingdom of Adal.

There is no direct evidence, however, either to prove or disprove the fact that this main group may have been again occupied at a later date. In the case of the ruins of Eik, in the light of the coin found there and assigned to Selim II (1566-74), it seems probable that it survived the destructions of 1527 and 1544 and perhaps finally passed out of occupation on the fall of the Mohammedan kingdoms in 1575. It is unlikely that the Eik and Eil Humo were included in the kingdoms of Adal or Hadya; being in more direct communication geographically with Berbera they probably formed part of one of the five other Mohammedan provinces.

Ethiopian accounts give certain indications regarding the inhabitants of the Mohammedan provinces. It is clear that most of the merchants or traders were immigrant 'Moors' or Arabs. Nevertheless from 1529 onwards there are frequent references to the Somalis who took an active part in the various Mohammedan wars and incursions

¹⁵ Not identified.

¹⁶ Marius Saineano, *op. cit.* p. 28. Leipzig 1892.

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into Ethiopia ; some eight tribes are mentioned¹⁷ by name, all of whom still exist and it seems probable that some of them occupied the country in which the ruined towns are situated. It is further apparent from the details recorded that they were a purely nomadic people then, as they remain today, and thus would have taken no part in the general life of the towns. A similar state of affairs is found in modern times in British Somaliland, where the trade in the towns is in the hands of the Indian and Arab merchants and the Somalis content themselves with the camel transport of goods, the brokerage of stock brought in for market, and petty trading.

I wish to thank Messrs. Braunholz, Hobson and King, of the British Museum, for their assistance in dating and classifying the finds ; Mr Adrian Digby for all the help he has given me and Miss Cecil Mowbray for assistance with the references.

¹⁷ The Darod group of tribes are represented by the Giri, Marehan, Herti, Bersuk, Bartire, Hawiya, Yebir and Harla, who are now a section of the Esa but recognize their Darod affinities. The Ishaak group is referred to as 'the people of Mait', Mait Island being the burial place of Sheik Ishaak their founder. They had not at that time reached the position of importance as one of the principal Somali groups. The Giri provided the Cavalry, the Herti and 'people of Mait' were armed with cutlasses, while the Yebir provided the bowmen. Ahmad ibn Abd Al-Kadir, *op. cit.*, pp. 45, 118, 121, 152, 173.

The Syrian City of Til-Barsib

by M. E. L. MALLOWAN

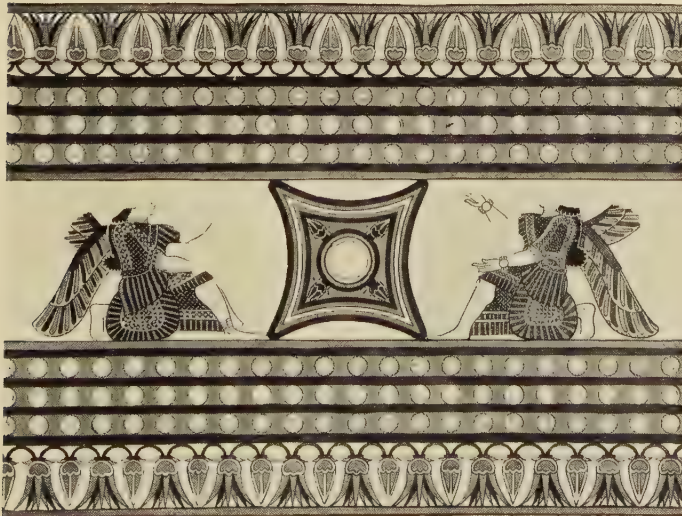
TIL-BARSIB. Par F. Thureau-Dangin et Maurice Dunand avec le concours de Lucien Cavro et Georges Dossin. Paris : Paul Geuthner, 1936. pp. 166 with Album of 53 plates and 5 plans. 200 francs.

THIS volume is a most important contribution to the archaeology of Syria. Tell-'Aḥmar, which lies on the left bank of the Euphrates, 20 kilometres below Carchemish, marks the site of the ancient city of Til-Barsib. As long ago as 1908 the late Dr Hogarth had suggested the identification of this mound with Barsib, and in 1911 Dr Campbell Thompson proved the correctness of Hogarth's surmise by copying and translating an Assyrian inscription which lay on the mound. After making preliminary soundings in 1927 a French Expedition under the auspices of the Musée du Louvre set to work in 1929 and the excavations, involving a total of seven months' work in all, were concluded in 1931. This volume, lavishly illustrated, describes in detail the remarkable results.

The earliest historical references to Til-Barsib occur in the reign of Shalmaneser III, when it appears to have been the capital of an important Aramaean state called Bit-Adini. In 855 B.C. Shalmaneser succeeded in capturing the city, which he turned into an Assyrian colony, endowing it with the new name of Kar-Šulmânašared—'Port Shalmaneser'—and began building a palace. Shalmaneser's successors made rapid headway in this country and under Tiglath-Pileser III the city was apparently the capital of the province of Ḥarrân. Later on Sennacherib used the site as a dockyard for building some of the ships required for his navy. The strategic importance of Barsib, a tête-de-pont on the Euphrates, was its position on a route which kept Guzana (T. Ḥalaf), Ḥarrân, Haddatu (Arslan-Tash) in touch with one another : in other words, it lay on one of the principal routes between Assyria and Syria.

The size and geographical situation of the mound were therefore in themselves a guarantee that T. Aḥmar would produce considerable monuments. The top of the tell was over 25 metres above virgin soil

PLATE I



WALL-PAINTINGS FROM THE ASSYRIAN PALACE, TIL-BARSIB
(see p. 331)

PLATE II



VOTIVE DEPOSIT OF OVER 1000 INTACT CLAY VASES IN A TOMB AT TIL-BARSIB (see p. 336)

PLATE III



BRONZE REIN-RING SURMOUNTED BY HORSES IN THE SUMERIAN
TRADITION OF METAL WORK, FROM THE TIL-BARSIB TOMB

see p. 337

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and the main composition of the mound may be described from top to bottom as follows :

1. Islamic and modern debris, 1 metre.
2. Hellenistic debris, 1 metre.
3. Assyrian Palace (Achaemenid tombs intrusive therein), about 6 metres.
4. 'Aramaean' building, about $1\frac{1}{2}$ metres.
5. A cemetery with cist graves, rich in metal and in pottery, dug into ruined buildings of the third millennium B.C., about $4\frac{1}{2}$ metres.
6. A series of mud-brick buildings of uncertain date, probably prehistoric-protohistoric and no doubt covering a long period, about $8\frac{1}{2}$ metres.
7. A level containing prehistoric painted pottery of Al 'Ubaid type superimposed over T. Halaf ware which rested on virgin soil, about 3 metres.

The most important discoveries were made in levels 3, 5, and 7, which produced respectively an Assyrian palace with a wonderful series of wall-paintings, a tomb containing the richest single deposit of metal and pottery ever found in Syria, and finally more evidence for the distribution of painted pottery in the chalcolithic period.

Though this review is confined to these three levels we must not overlook the fact that the other levels also produced finds of great interest, *e.g.* important evidence for the dating of Hellenistic terracotta figurines, a number of Achaemenid tombs rich in bronzes, much stone carving, including a number of Hittite sculptures for which T. Ahmar provides an important *terminus ad quem*—the destruction by Shalmaneser in 856 B.C. Lastly there is a large building, possibly a palace founded before the 9th century B.C., and allied in plan to buildings discovered at Carchemish.

The Assyrian palace was defended on the south side by the river Euphrates and on the north by a great town wall roughly semicircular in plan. The ends of the wall abutted on the Euphrates and were 1100 metres apart. This semicircular plan is in keeping with the building tradition witnessed by the defences of Arslan-Tash and Sendjirli. The total length of the Barsib wall was nearly 2 kilometres. It was excavated in outline over a distance of 230 metres and found to be built of mud bricks 37 cms. square resting on a foundation of stones ; at intervals in the wall there were bonding layers of pebbles. Buttresses built at intervals of $8\frac{1}{2}$ metres gave the wall the enormous maximum

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thickness of $11\frac{1}{2}$ metres, and theoretically the town should have been impregnable. There seem to have been three main gateways, but only the northeast gate was excavated and this proved to be a formidable structure with guard-rooms in the flanking towers. On either side of the entrance stood a pair of monumental stone lions $2\frac{1}{2}$ metres in height. The inscriptions on the lions were of exceptional interest because although couched in Royal form they did not mention the king's name—a solecism in the annals of Assyrian history. The inscription served rather to glorify the *tartân* Šamši-ilu, who seems to have been a governor of exceptional power during three reigns, combining in his person the chief civil, military, and religious offices. The Barsib inscription records his victory over Argistis king of Urartu (Van). We learn too that the Assyrians had to fight against the king of Urartu in their own territory and were not on this occasion conducting an offensive campaign as is implied elsewhere in the Assyrian chronicle. But the military prowess which enabled Šamši-ilu to dispense with the king's name is evidence of a considerable decline in the authority of the king during the reign of Shalmaneser IV. That this insult to the royal dignity was not overlooked is proved by the fact that subsequently the name and titles of Šamši-ilu were erased.

The Assyrian palace is described with the methodical thoroughness which we should expect of M. Dunand, the excavator of Byblos. Although only a provincial palace, it is still built on the vast scale which is in keeping with the might of Assyria, and its general disposition brings it into line with the great palaces of Nineveh, Khorsabad, Nimrud and Arslan-Tash. Its aspect must have been tremendously impressive, for standing on an already high mound the building towered over the Euphrates: its great pilastered wall cast alternate bands of light and shade, and the majesty of its exterior prepared the visitor for the magnificence within.

The building is rectangular in plan and the long axis is parallel with the Euphrates, which here flows east. The overall measurements are 130 by 70 metres, but as the building is considerably ruined on three of its sides (especially on the south owing to the Euphrates floods) they must originally have been much larger. Even so, this was one of the smaller Assyrian palaces.

The main entrance at the northwest end of the north wall was protected by two great flanking towers. A secondary entrance may at one time have existed in the northeast end of the east wall. In essentials the palace is a complex of three enormous courtyards, the

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largest of which measures 65 by 25 metres. The economy of the palace with its administrative and domestic quarters, the royal apartments and the *harem*, is typically Assyrian. The throne room at the south end of the palace is reasonably preserved and still contains the dais on which the king's throne once stood, while the frescoes in the same room depict the king.

Some of the mud-brick walls were no less than $4\frac{1}{2}$ metres thick and M. Dunand, who comments on the astounding fact that for the most part there were no foundations whatsoever, supposes that the architects were satisfied that the mere thickness of the walls guaranteed their stability. I think it is also possible that the builders were reluctant to dig down into the disturbed soil of the underlying ruins. On the Habur today builders frequently put up their walls directly on to the existing surface rather than dig down into the disturbed subsoils, and results proved that they are right. Indeed on the south side of Barsib where the Assyrian architects did dig deep foundations for their buttresses the building caved outwards into the Euphrates and suffered severe destruction.

An interesting feature of the palace is the planning of the long narrow corridors which form an internal *chemin de ronde* safeguarding the royal apartments and providing an emergency exit in case of necessity.

Sanitation and drainage were carefully attended to, for the palace contained no less than nine lavatories and two bath-rooms. The arterial system of drainage consisted of a network of underground limestone troughs with control points involving a meticulous system of levelling. These details are further proof of the skill of the Assyrian hydraulic engineers, though the quality of the materials used for drainage varied very considerably.

Most of the floors were of beaten mud, but the courtyards and some of the rooms were stone-paved. Mosaics consisting of large alternate blocks of black basalt and white limestone were a decorative feature of some of the pavements.

The construction of the palace underwent certain modifications in later times. The northeast wing is the oldest and may date back to the time of Shalmaneser III, c. 850 B.C.; the main building probably belongs to the eighth century and smaller reconstructions were continued down to the time of Ashur-bani-pal.

But the most important discovery is a marvellous series of wall-paintings (PLATE I) which must take their place as the earliest outstanding landmark in the history of ancient painting.

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I was privileged to pay a visit to T. Ahmar in 1930 and I shall never forget the brilliant impression made by these vivid pictures, the freshness of the paint standing out in all its glory after a shower of rain. It is indeed a tragedy that only a few fragments, distributed between the Louvre and the Aleppo Museum, survive. M. Thureau Danguin, who gives a masterly account of the paintings, says that they were unable to save the mass : it would have been interesting to hear what methods were applied to preserve such specimens as were removed and why the remainder could not be salvaged. Indeed at any time more Assyrian frescoes may come to light and any experience gained in salvaging previous fragments should have been given the fullest publicity.

But though we may lament the loss of most of the originals we have by way of compensation a series of reproductions which are probably as close as copies can be to an original. By a rare stroke of fortune the Expedition was able to secure the services of M. Lucien Cavro, a first class copyist who had already done skilled work in reproducing the recently uncovered mosaics in the Ummayyad mosque at Damascus. We hope that his admirable work will be permanently exhibited in the Louvre. The difficulty of the task has been explained by M. Thureau Danguin : ' C'est peu de dire qu'il a copié ces peintures, il les a déchiffrés '. To some extent therefore interpretation has been necessary, but the copies (made with the aid of tracings) show very clearly what exists and what can be restored with comparative certainty, nor has there been any attempt to fill up complete lacunae with hypothetical reconstructions. M. Cavro's achievement deserves the gratitude of posterity.

The paintings fall into two main groups : the later group belongs to the reign of Ashur-bani-pal, *c.* 650 B.C., and the earlier to some period between 850 and 722 B.C. M. Thureau Danguin's account of the stylistic considerations which must govern any attempt to fix the date of the earlier group is of great importance for an appreciation of the development of Assyrian art. He takes it for certain that these paintings must be earlier than Sargon, *i.e.*, before the seventh century B.C. The particular grounds for this assumption are based on the fact that the oblique drawing of the bunch of fluffy hair at the back of the head is never found in Assyrian art after this date. The general grounds depend on the observation that the musculature, and the broad and vigorous drawing of the figures are stylistically closely akin to the art of Ashur-nasir-pal II. On the other hand the paintings cannot have been executed before the closing years of Shalmaneser III, who was the first

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Assyrian king to conquer Barsib and build an Assyrian palace. M. Thureau Dangin says that the paintings are 'franchement postérieures à Salmanasar', but it seems to me that we have at least to reckon with the possibility that the work may have been begun in the closing years of his reign, *i.e.* after 850 B.C. We therefore arrive at the conclusion that the paintings must fall within the period 850-722 B.C. M. Thureau Dangin however points out a number of technical details which are never found before Tiglath Pileser III, *i.e.* details not known to occur before 745 B.C. These are enumerated as follows: chariots with eight spoked wheels, a quiver standing vertically on the front of a chariot, the king with a flower and a feather fan in his hand, archers with quivers closed by material hanging down from the sides and ending in 'cordonnets houppés', an Assyrian scribe accompanied by an Aramaean who is represented as writing with a brush. These objections however the author does not consider decisive because between Shalmaneser III and Tiglath Pileser III we have a span of three generations (859-745 B.C.) during which material for comparison almost entirely fails us. Further, certain other details are difficult to explain if the frescoes are as late as Tiglath Pileser III. Thus the lower halves of the sword scabbards are generally decorated with double volutes, a fashion which is common in the time of Ashur-nasir-pal II and Shalmaneser III but after that very rarely found (once in the time of Adad Nirari III and only in two other instances in the time of Tiglath Pileser III).

M. Thureau Dangin's opinion on the date of the paintings is summarized in the comment on p. 46, 'Enfin nos peintures ont un aspect assez sensiblement plus archaïque que les sculptures contemporaines de Teglatphalasar; elles ont notamment dans l'expression de la musculature conservé quelque chose du style large et vigoureux qui caractérise les sculptures du IX^e siècle'. As against this general stylistic consideration however, it seems that there are many details which can very well be paralleled in Sargonid and post-Sargonid times, and I will not do more than point out that there is scope for difference of opinion as to whether the paintings are of the 8th or the 7th centuries B.C., so that it is perhaps wiser to admit with M. Thureau Dangin that we are not yet in a position to settle the question of their date.

The technique of the paintings is simple. The background consists of a white lime distemper which is applied directly to the mud-brick walls. Only three colours were used, black, red and blue, applied without shading. Green and yellow never occur at Barsib. Frequently however the colours were mixed, red with white, giving a pale red, and

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red with blue giving an aubergine tint ; further, a violet red is produced by the admixture of red, black and blue. The blue is of a light tinge nearing cobalt. In the earlier group the entire outline was done in black and the details were then filled in with red and blue, but the red and the blue were never in direct contact, each of these two colours being invariably outlined in black. In the later group the technique was considerably modified : the drawing was done in red, and black was only used to accentuate the most important features.

There are two classes of composition. The first consists of large and spacious designs illustrating the principal activities of the king—attended by his court, at war, receiving tribute from men of Anatolia, reviewing his Beduin captives, hunting, taking on a lion in single combat. It is noteworthy that not the slightest concession is made to any notion of 'feminism', for the subjects represented in the *harem* differ in no way from those in other portions of the palace. As M. Thureau Dangin remarks, this is in keeping with the negligible social status of women in ancient Assyria. One striking detail aptly commented on is the representation of a lion couchant at the feet of the king. It is certain that the lion was no mere symbol of royal authority but a beast that must have been present in the flesh. There are literary references to lions at the Assyrian court and an admirable parallel is quoted from the memoirs of Baron Ser, who recalls how under the 'Directoire' the French Consul at Algiers was received by the Dey whose elbow rested on the back of an enormous lion couchant at his feet. Lions were also kept till recent times at the court of the Negus of Abyssinia.

The second class of composition consists of purely geometric drawings and of apotropaic figures of genii and monsters, bulls and lions, often confined to an upper register. In the royal apartments for example the compositions were disposed as follows from the bottom of the wall upwards :—a bitumen plinth $\frac{1}{2}$ metre high surmounted by a border 10 cms. wide, a lower register of paintings $1\frac{1}{2}$ metres in height, then an upper register or frieze 2.3 metres high. The total height of the wall decorations therefore rose to nearly $4\frac{1}{2}$ metres, or nearly 16 feet.

It is worth observing that there were numerous traces of sketches and designs underlying the eventual frescoes, and it is possible that the artist sometimes painted a trial piece which he executed with a different and final version. There are instances of the final design considerably modifying the preliminary sketch. Another interesting point is that the design of the latest period sometimes kept fairly closely to the older

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paintings and in spite of radical differences in style and technique are to some extent influenced by earlier traditions.

M. Thureau Dangin has justly observed that Assyrian sculpture, though rich in masterpieces, often shows an uneven range of artistic merit in execution, and he explains this as due to the fact that the enormous length of surfaces to be covered necessitated the employment of simple artisans who had no part in originating the general scheme. In Assyrian painting on the other hand the artist both designed the general scheme and carried out the details himself : composition and execution went hand in hand.

It is probable that lighting was effected by windows high up in the walls, certainly over 4.4 metres above floor level, in the manner of Islamic buildings. The general effect is best described by translating the author's own words on p. 74. 'On their lime background the paintings stood out sharply and could be discerned perfectly. In the large composition on the lower register colouring was as a rule sparingly applied, and often consisted of no more than a touch or two to show up the outline. By way of contrast paint was lavished on the frieze, which made the upper register brilliantly ornamental. The impression aimed at was an interchange of red against blue : a harmony of the kind may appear simple to our taste, but it is none the less powerful, and the light blues composed of a crystalline powder were enhanced by the darkness of the dull reds '.

Five metres below the level of the Assyrian palace the Expedition made a second discovery of outstanding importance. Underlying a building of the 'Aramaean' period, and antedating it by a considerable period of time, was a cemetery which contained a variety of tombs including limestone cist-graves and one in mud brick. Richest of all was a stone-paved limestone cist-grave 5.4 metres long by 3 metres wide and 2.1 metres high. The walls were built of dry masonry consisting of rough limestone boulders, and chippings were used to fill up the interstices. The side-walls incurved sharply and the roof consisted of five enormous blocks of limestone and conglomerate laid transversely to the long axis. Outside the tomb, abutting on the end wall, there was a shaft with walls of solid masonry, 2.2 by 1.4 metres and 2.5 metres deep, containing nothing but earth. This shaft communicated with the grave through a doorway which had a stone threshold, and it was obviously used as an access to the tomb. Inside the tomb, or hypogeum as M. Dunand calls it, were the disturbed remains of two human skeletons and a profusion of goats' bones. Together with the

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skeletons there was a truly astounding votive deposit consisting of 1045 intact clay vases, which is claimed to be the largest deposit of pottery ever found in a single tomb. An interesting photograph (reproduced here as PLATE II), gives a fine view of the remarkable hoard of booty which greeted the excavators' eyes on opening the tomb. In addition to the pottery there was a collection of bronze weapons and ornaments of the greatest variety and interest.

It would seem that so large a mass of material should be easy to date: unfortunately there is ample scope for disagreement. M. Dunand assigns the whole group to the earlier part of the second millennium B.C., and implies that the objects were made round about 1750 B.C. In my opinion this is very much too late and I am inclined to put the date very much nearer to 2500 B.C. I trust that the ensuing remarks will induce others to rush into the fray.

Although my opinion differs very considerably from that of M. Dunand, I should like to make it clear that his general statement of the evidence is a most valuable piece of work and that he has by no means neglected the parallels that would argue an earlier date. The account of analogous and similar material from other sites is the result of considerable research, but I do not believe that his final conclusion is compatible with the evidence adduced in support of it. Let us examine the position in the way that M. Dunand very fairly presents it. The analogous ceramic material may be summarized as follows:

1. Material from the Orontes valley. Under this heading we may include Mishrifé (the ancient Qatna) which actually lies on a tributary of the Orontes. Much of the pottery from the celebrated tomb IV at Qatna published by Du Mesnil du Buisson is identical with the Barsib tomb group. Qatna tomb IV is dated by du Mesnil to c. 2500 B.C. and I have little doubt that this is approximately correct, for the date of the bronzes in that tomb would agree very well with material from Chagar Bazar, east of the Habur. Under this heading also we must include the pottery from Dnebi and T. As, generally placed between the 23rd and 15th centuries B.C. The analogous types from these two sites, neither of which provided any fixed dating evidence, must be assigned to the upper end of this period.

2. Material from the Sajur valley and Euphrates sites near Aleppo, in particular the objects published by Woolley in *Annals of Art and Archaeology* VI, from Carchemish, Hammam, Kara Hassan and El-Amarna. I think we may now say with confidence that the Carchemish 'champagne' vases are at least as early as 2500 B.C. by reason of

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the early Sumerian metal-types which are contemporary with them. The Carchemish 'champagne' vase occurs in the Barsib tomb. Close parallels also occur at Hammam and Amarna, notably the peculiar tripod bowls from the Barsib tomb. But in considering the relevancy of these parallels we have to remember that the pottery from Hammam and allied cemeteries consists of groups brought in by peasants, and we have no proof whatever that such groups were in fact found together. The Hamman pottery as I believe belongs to at least two different periods which fall respectively before and after 2000 B.C., and I think this conclusion is warranted by recent discoveries at Chagar Bazar. Discoveries on the latter site prove also that the tripod bowl in Syria has a long history, and the rough prototype of the Amarna and Hammam product occurs east of the Habur at least as early as 2700 B.C. Woolley has good grounds for suggesting that the Hamman cemetery is intermediate between the 'champagne' vase cist-graves of Carchemish and the 'Middle Hittite' cemeteries of the second millennium. Recent discoveries enable us I think to be more precise and to suggest that the majority of the unpainted pottery from Hammam is likely to fall within the period 2500-2300 B.C. or thereabouts, and that the painted vases belong to a later group and are post-2000 B.C. The same considerations apply to Amarna which on the whole may be later than Hammam but has many links with it. In general I believe that the relevant material from this group of sites argues for the Barsib finds a date before 2300 B.C.

3. Material from the Tigris and the lower Euphrates valley. Kish A, Ur Royal Cemetery, Gawra 7. Analogous and similar pottery not later than 2500 B.C.

Here therefore we have a wide variety of ceramic arguing an early date: we shall a little later consider certain exceptions.

The second type of evidence to be summarized is the metal. Here the balance of the evidence is overwhelmingly early. 'Avec les bronzes il faut revenir au pays de Sumer pour trouver les analogies les plus frappantes'. A pickaxe and some of the flanged axes are so similar to material from the pre-Sargonid graves in the royal cemetery of Ur that they might have come out of the same workshop. There is an axe very closely paralleled in Gawra VI, a flanged axe identical with a specimen from Luristan, and a parallel at Susa recently published by de Mecquenem is said to belong to the third dynasty of Ur. The axes with antithetical animals are in the Sumerian tradition, and there is a rein-ring surmounted by a pair of horses (PLATE III), another link with the Kish and Ur cemeteries.

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As against this abundance of early material only a few of the metal objects have later parallels. The crescentic axe is a type that persists, and some of the pins and daggers have later Anatolian and Cypriote analogies.

To return to the pottery, there are a few types which might be subsequent to 2500 B.C. but some of the late parallels which M. Dunand refers to T. Beit Mirsim in Palestine are inexact. Thus plates XXIII, 10-20, and XXIV, 1-5 are far closer to forms of the 3rd millennium featured by the Billa ware. On the other hand the Jericho vase with a spout in the form of a ram's head published by Garstang in *Annals of Art and Archaeology* xx, fig. 4, no. 5 of c. 1650 B.C. is very similar to Barsib, pl. XXVII no. 1, A though the shape is different: on pl. XXV nos. 11-13, and pl. XXVI nos. 2, 3 the vases and jugs are much closer to Palestinian and early Cypriote Bronze Age forms. The latter types are never found in Sumer in the third millennium and are interesting as being in a non-Sumerian tradition. The argument on p. 114, footnote 5, that the amphora is attested at Nineveh in the third millennium is wrong. The reference is misquoted and should read *AAA*. xix, plate LII, no. 13, and the apparently similar amphora from Nineveh so far from being early is Romano-Parthian and decorated with a porous blue glaze.

The most cogent argument for a later date is a type illustrated on plate XXII, nos. 12-15, and XXIII, nos. 1-4, which is said to show examples painted with three bands of red ochre. It is unfortunate that no illustration is given of these painted examples, but the description seems very definitely to imply that they are similar to a painted ware belonging to the later group at Hammam and to Chagar Bazar types which are subsequent to 2000 B.C.

Apart then from a few exceptions both the pottery and the metal are most nearly related to material which occurs elsewhere in contexts definitely earlier than 2500 B.C. But the appearance of unmistakable horses on the bronze rein-ring, and the well developed forms which may have taken some time to work up the Euphrates valley from Sumer, the principal centre of their manufacture, may imply a certain time-lag. We may therefore concede that the pottery as well as the metal may have been deposited between 2500-2300, though I still incline to the earlier date.

How are we to account for the few later objects? It is injudicious to attempt to deny their existence, just as it is in my opinion injudicious to attempt to assign objects hardly ever found after 2500 B.C. to a period

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later than 2000 B.C. I would therefore be inclined to explain the contents of this tomb as belonging to more than one period. This theory would account for some strange features which may be summarized as follows :

1. Why this enormous deposit of 1045 vases ? Numerically five times as great as any other yet discovered in Sumer and three times as great as any discovered in Syria. If the deposit covers more than one period we have an easy explanation for the size of the deposit.

2. The tomb has an access in the form of a well-shaft offering every facility for approach in later periods.

3. The skeletons in the tomb appear to have been disturbed. This fact is in itself evidence of later intrusion, and there were apparently no signs of desecration. (It is possible however that this disturbance was in part due to the fall of a portion of the roof).

4. In the tomb there were numerous goats' bones which must have been the remains of some ritual feast.

We may note further that evidence from the royal cemetery of Ur showed that early dynastic tombs had some kind of superstructure and that commemorative sacrifices were probably made. The practice of venerating a 'Saints' tomb is endemic in the East and often involves deposits over a period which may cover some hundreds of years. It is for the excavator to say whether there is any insuperable argument against this hypothesis. If the theory is valid our difficulties are solved ; if not then the mass of evidence inclining to the earlier date must I think outweigh the later analogies.

In conclusion we have to touch on the very interesting prehistoric painted sherds discovered in the bottom three metres of the mound, the earliest of them resting directly on virgin soil. In the upper levels of this stratum there are sherds which apparently resemble the Al 'Ubaid ware of Arpachiyah—the northern variety of Al 'Ubaid : *cf.* pl. xxxv, nos. 1, 3, 18. In the lowest strata there are sherds which are identical with the older T. Halaf ware, but inferior in quality. M. Dunand makes a sound observation when he implies that the fabric is a Western provincial variety of a pottery which had as its centre of development the basin of the Upper Tigris.

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PILE-HOUSES (PLATE I)

Ever since the Swiss and Italian lake-villages were discovered, houses built on wooden piles have necessarily had an interest for European archaeologists. Modern parallels have been found in New Guinea ; but others nearer home have been overlooked. PLATE I shows buildings at Jajce near Travnik in Yugoslavia representing, in a modified form, the modern survival of a habit that goes back to the neolithic period in Central Europe. Note that the whole of the structure is made of wood, including the roof with its wooden shingles. These last are a constant feature of houses in mountain regions ; I have seen them myself not only in the Balkans (where Mrs Piggott's photograph was taken) but also in the Caucasus and at Kakopetria, in the foothills of the Cypriot mountains. They are used also throughout the Himalayas and beyond into China and Burma.

Such houses, when abandoned, would gradually melt into the soil. Not even the piles would survive, except as 'post-holes', for there would be no water to preserve them, as happened when the houses were built on the shore of a lake. All the archaeologist would find presumably would be a slightly deeper layer of top-soil, perhaps even a slight mound, and a quantity of remains. For we need not doubt that the space beneath the floor would serve as a dump for broken pots and rubbish of every kind. The possibility that prolific sites like All Cannings Cross were occupied by pile-houses was suggested at the time by the excavators. It is a possible explanation that should be borne in mind, especially in damp or marshy regions. For 'damp' was the reason given on the spot to account for the cottages on low piles at Sukhum in Abkhasia. The place lies at the foot of the Caucasus, on the north shore of the Black Sea, and only a few yards from it. There is a considerable annual rainfall, but the site in question is not one that could ever be flooded ; and I suspect that 'damp' rather than actual water is the effective cause. For the wooden walls and floors of a house thus raised up must be much drier and less

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apt to rot away than those almost in contact with the soil. The air circulates freely underneath and must help to keep the house dry. The wooden huts so familiar during the last war were all built on this principle, though of course the elevation was very slight.

The upland farms further inland often have a verandah in front, raised on piles ; but this may be due to the difficulty of obtaining a level surface to build on when the land slopes steeply and the subsoil is hard rock. Indeed, the difficulty of obtaining a level surface may be one reason why piles were used in other cases.

Everywhere it is usual, even today, to build granaries on piles, to keep rats out. Sometimes mushroom-like stone supports (known in Wessex as ' staddle-stones ' or ' staddles ') serve the same purpose for straw- and hay-ricks.

O.G.S.C.

ARAB MAP OF THE BRITISH ISLES (PLATES II-III)

Abû 'Abdallâh Muhammad al Idrisi (commonly called Edrisi) ' is said to have been born in Ceuta about A.D. 1099, to have studied in Cordova, and to have made extensive voyages in Spain, to the shores of France, and even of England, to Morocco and Asia Minor. It is certain that in the latter part of his life he resided for a considerable time at the court of the Norman king of Sicily, Roger II, which during the Crusades was a meeting-place of Normans, Greeks and Franks. According to Edrisi's account, Roger collected through interpreters geographical information from all travellers, caused a map to be drawn on which every place was marked, and had a silver planisphere made, weighing 450 Roman pounds, upon which were engraved the seven climates of the earth, with their countries, rivers, bays, etc. Edrisi wrote for him his description of the earth in Arabic, which was completed in 1154, and was accompanied by seventy maps and a map of the world '.*

Edrisi's knowledge of British conditions was crude. He describes it as ' a considerable island whose shape is that of an ostrich's head . . . The country is fertile ; its inhabitants are fine, active and enterprising people, but perpetual winter reigns there '. When we reflect upon the fact that winter weather in, let us say, Cyprus, is more or less equivalent to that of a bad (or average) English summer, this statement acquires more meaning and is seen to be approximately true.

* Fridtjof Nansen, *In Northern Mists*, 1911, II, 202-3.

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Edrisi mentioned the following places :—

Suggested Identification	Paris MS	Bodleian MS
1 Dover	Davras	Dar . . s(?)
2 London	Londres	Londres
3 Yarmouth	Jartmuda	Jartjams
4 Hertford	Gharkfarth	Gharkfort
5 Boston	Bashka	Baska
6 Lincoln	Nikolas	Niklus (?)
7 Grimsby	Aghrimes	
8 Salisbury		Salabus
9 Wareham	Gharham	Bayham
10 Southampton	Haynna (Hatuna)	
11 Shoreham	Sharham	Sarham
12 Hastings	Hastings	Hastikip
13 York	Afardik	Karandaka
14 Durham	Darham	Diylami (?)

England falls awkwardly on the sectional maps provided, being divided up between three of them. Moreover the names are all written in Arabic and by no means easy to decipher. There is no attempt at a scale. The draughtsman seems never to have been able to decide whether he was drawing a picture or a map : indeed as pictures, or rather as geometric patterns the maps are by no means without merit.

The identifications and readings given above have been most kindly made for ANTIQUITY by Sir Denison Ross ; and the explanatory diagram is based upon one supplied by him. Sir Denison Ross adds :— ‘ My notes on the Paris MS are based solely on Lelewel’s well known but all too rare *Geographie du moyen âge*, and if you are making any use of my notes, attention should be called to this indebtedness ’. Thanks are also due to Mr Edward Lynam, of the Map Room, British Museum, for his help in the preliminary task of locating the manuscripts.

POTS AND CULTURE (PLATE IV)

Archaeology is intimately concerned with pottery which, with the possible exception of flints on a few early sites, is the most abundant of all remains, and one of the most useful. Many cultures are known and named from their characteristic pottery. It is natural therefore that archaeologists, who habitually think in terms of pottery, should be inclined to associate that which is well made or aesthetically pleasing with a high cultural level in the society which produced it ; and to

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regard crude, coarsely made wares as evidence of a low level. Similarly, evidence of advance or decline in the art of pot-making is regarded, by inference, as indicating an advance or decline of culture.

How far are such inferences justifiable? If by culture we mean 'material culture' it is evident that, since pottery forms one of the elements of which material culture is composed, its character is legitimate evidence, taken together with other kinds of evidence for the state of the material culture of the community which produced it. Thus far we may legitimately go. But is it legitimate also to conclude that the whole culture—that is, the general standard of living—of a community can be at all indicated by the character of its pottery?

Difficult but fascinating problems are raised, involving basic principles. We sometimes talk of a 'community' as if it were a single indivisible unit with a single standard of living; but has such a community ever existed, at any rate since the days of the first self-sufficient agricultural community, if then? Were there not always rich and poor, the one using 'better' pots than the other? And what do we mean by a 'better' pot? Is china-ware 'better' than glazed earthenware, or plate than china? Was Samian 'better' than Belgic ware? We may safely answer 'yes' to the last two questions and proceed to draw the obvious inferences.

But is it safe, when we find two contemporary variants of the same type of pot in two different places, the one better made than the other, to infer anything by a difference of technical skill? On PLATE IV are illustrations of two pots, seen from two different angles. The one on the left was bought in the native quarter of Alexandria, the other was bought the next day at Athens (and weighs 3 lbs. 5 oz.) The Alexandrian pot is squat, heavy (weighs $4\frac{1}{2}$ lbs.), thick-sided and rather coarsely made. On its sides are contact-scars produced during firing, and its rim is chipped by contact with other pots either during firing or transport. (I tried in vain to find one free from these blemishes). One of the handles is badly formed. The Greek pot, on the other hand, is much lighter and thinner; the base is narrower (though quite adequate for support) and the handles are attached lower down. None of the blemishes of the other occurs. The paste is finer and less gritty, and the appearance and colour are (to me) more pleasing. These characteristics are, with the exception of the last, objective; moreover, since I believe (from fairly close observation) that both pots are typical—the Alexandrian was selected after prolonged observation and inspection of others—they may fairly be used as a test case.

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Admitting the better craftsmanship of the Athenian pot, which could hardly be denied, are we justified in going further, and inferring that the culture-level, the standard of living, of the Alexandrian community (or a part of it) is lower than that of the Athenian (or a part of it)?

Now we do know something about living conditions in Alexandria and Athens; and I do not think that any one familiar with both would hesitate for a moment if he were asked which was the better of the two. Alexandria is probably no worse than many other Egyptian towns; but the filth of its streets and the squalor of its houses is plain to every observer. Moreover the Arab culture generally is undoubtedly on a far lower level than that of the Greeks. So far as mere observation goes, then, it agrees entirely with the inferences that might be drawn by a speculative archaeologist excavating the sites of Athens and Alexandria several centuries hence.

Can we go further and detect, in the superior craftsmanship, any faint echoes of that superb artistic skill which produced the Greek vases of classical times? To do so would be, I think, unwarranted, because there are so many missing links. But surely some lingering remnant of the Keramikos may still survive, even if the tradition cannot be proved to have continued unbroken since classical times.

My purpose, however, is to state rather than to solve the problem. In conclusion, I would refer those who are interested to some very suggestive remarks by the late Dr Hogarth, in his *Twilight of History*, p. 4 (8th Earl Grey Memorial Lecture, Oxford, 1926). O.G.S.C.

A PASSAGE ON SCULPTURE BY DIODORUS OF SICILY*

‘Also of the ancient sculptors the most renowned sojourned among them (*i.e.* the Egyptians (H.M.)) namely Telecles and Theodorus, the sons of Rhoecus, who executed for the people of Samos the wooden statue of the Pythian Apollo. For one half of the statue, as the account is given, was worked by Telecles in Samos, and the other half was finished by his brother Theodorus at Ephesus; and when the two parts were brought together they fitted so perfectly that the whole work had the appearance of having been done by one man. This method of working is practised nowhere among the Greeks, but it is followed generally among the Egyptians. For with them the symmetrical proportions of the statues are not fixed in accordance with the appearance they represent to the artist’s eye, as is done among the Greeks, but as

* Diodorus of Sicily, Book I, 98, 5-9. Translated by C. H. Oldfather.

PLATE I



PILE-DWELLINGS, JAJCE, NEAR TRAVNIK, YUGOSLAVIA, 1935 (*see* p. 340)

ph. C. M. Piggott

ARAB MAP (12TH CENTURY) OF PART OF THE BRITISH ISLES
PREPARED FOR ROGER II, KING OF SICILY (*see* p. 341)

PLATE III



MODERN RECONSTRUCTION OF THE ARAB MAP ILLUSTRATED ON PLATE II

PLATE IV



MODERN POTS BOUGHT AT ALEXANDRIA (LEFT) AND ATHENS (RIGHT) (see p. 34.)
ph. Max Mills

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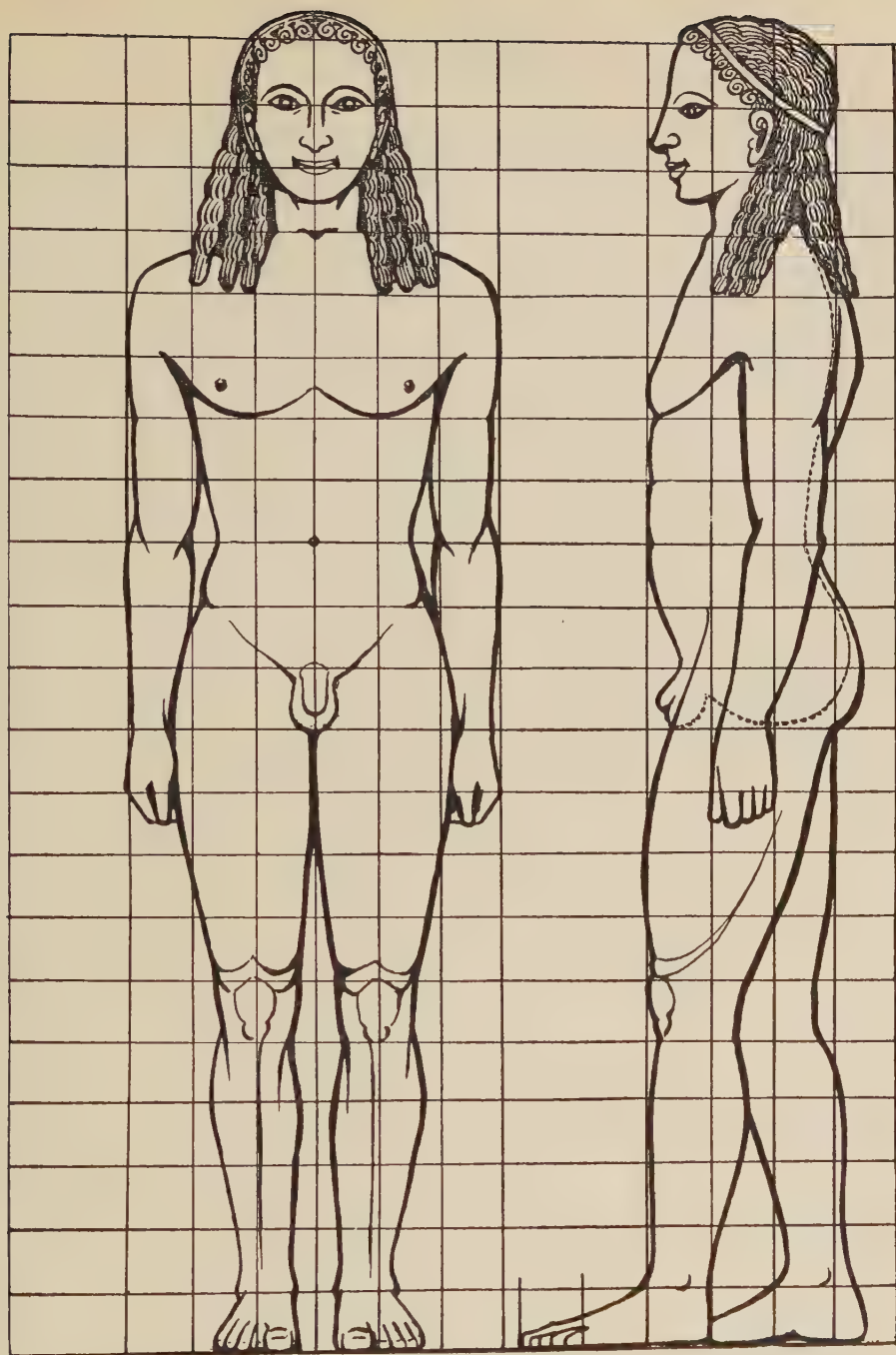
soon as they lay out the stones and, after apportioning them, are ready to work on them, at that stage they take the proportions, from the smallest parts to the largest ; for, dividing the structure of the entire body into twenty-one parts and one fourth in addition, they express in this way the complete figure in its symmetrical proportions. Consequently, so soon as the artisans agree as to the size of the statue, they separate and proceed to turn out the various sizes assigned to them, in such a way that they correspond, and they do it so accurately that the peculiarity of their system excites amazement. And the wooden statue in Samos, in conformity with the ingenious method of the Egyptians, was cut into two parts from the top of the head down to the private parts and the statue was divided in the middle, each part exactly matching the other at every point. And they say that this statue is for the most part rather similar to those of Egypt, as having the arms stretched stiffly down the sides and the legs separated in a stride '.

The above passage by Diodorus of Sicily has excited considerable interest among classical scholars, but hitherto no generally acceptable explanation of its meaning has been suggested. There is no ambiguity in the account itself, but it would seem that the processes involved are unfamiliar to the general reader. From an examination of those works of the early Hellenic sculptors which chance has preserved, or the spade of the excavator has unearthed, and are available for our study, it is clear that the strongest technical influence in the spectacular rise of Greek sculpture between the 7th and the 5th centuries before Christ was that of Egypt. The grant by Psamtik I of treaty ports in the Delta, and the visits of Greek travellers and craftsmen to Memphis and Thebes resulted in a general advance in culture, and an added interest in, and demand for, works of art. So, any attempted solution of our problem must necessarily take into account the figure sculpture which was being produced in the sculptors' workshops of Egypt, as well as that issuing from the workshops of their pupils in Crete, Samos, and other Hellenic lands. It is probable that Telecles and Theodorus followed the studio practice of their Egyptian master, but neither the Egyptian sculptors nor the archaic Greeks had any *general* canon, as Diodorus suggests. In later years both Polykleitos and Lysippus produced statues which embodied canons of proportion which their own studies of the figure had led them to favour. But in neither case did the canon thus evolved have currency beyond the immediate circle of that sculptor's followers. The illustration (page 347), shows a composite figure, the proportions of

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which are based upon those of a number of works in the Athens and other museums. It may help us to understand something of the methods employed by Telecles and Theodorus, though it is not suggested that the proportions shown are exactly those employed by the two artists. Diodorus states that the figure was divided into the twenty-one parts, and a quarter of a part in addition. This last fraction may be dealt with at once. The head of an Egyptian statue was frequently surmounted by a wig, a cloth head-dress, a crown, a pair of arms or other device. Now these structures vary considerably in height, from the low cloth cap to the tall crown of Upper Egypt. Therefore, the Egyptian sculptor allowed the quarter unit for the hair, and took the top of the forehead—the hair-line—as the upper limit of his figure instead of the (often invisible) top of the head. His scale was divided into twenty-one parts or units. In the drawing it will be seen how convenient a scale one of twenty-one units would prove. Reckoning upwards from the top of the base it will be seen that units mark the top of the instep ; the bottom and top of the knee ; the end of the torso ; the widest part of the hips and the wrist ; the bottom of the abdomen ; the anterior spine of the ilium ; the navel, the waist and the elbow ; the lower border of the pectoral muscle and that of the deltoid ; the limit of the armpit ; the end of the hair ; the pit of the neck ; the mouth ; and the eye. Across the figure single units mark the width of the ankle and the lower part of the knee ; the face takes two units, the waist and the nipples three ; shoulders, forearms and hands six, and so on. In the side view it will be noted that three and a half units mark the width over the shoulder blades, and over the gluteal mass. Also that there is a similar distance between the top of the instep of the left leg and the heel of the right. Both head and foot take three units, the body at the waist two and a half. There are many other places where structural forms and units of measurement coincide. Again the right heel, the gluteal masses and the shoulder blades touch one vertical line, as also do the front of the left leg and thigh, the abdomen, the pectoral muscles, and the nose. The dividing line passes straight through the centre of the figure. In the side view it is shown as a dotted line within the outline of the figure at the back and lower portions of the torso, where that part of its course is hidden by nearer portions of the figure.

It seems to have been the Egyptian custom to set out the number of units required, in a series of parallel lines on the front, the back and both sides of the block of stone or wood from which the statue was to be carved. The profiles were drawn in, and those parts of the material



DRAWING FOR A CARVED FIGURE OF APOLLO, SET OUT ACCORDING TO THE
METHOD DESCRIBED BY DIODORUS

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which were outside the profiles, as drawn, were cut away. In the course of work a good many of the original lines would be destroyed, but a sufficient number would be carefully preserved till the completion of the carving, in order that measurements might be verified when necessary.

Let us return to Telecles and Theodorus for a minute. They would have no difficulty whatever in making the principal points in their respective half figures to correspond exactly, for the position of each was definitely laid down in the canon by which they worked. But what about the finer details, say the profile of the face? From the drawing it will be seen that this commences at the hair-line in the centre of the upper border of the twenty-first unit, and that the nose touches the centre of the left-hand border of the twentieth unit. What of the line between? Here we should remember that the two sculptors are said to have been brothers, and that they had been trained together to work in the Egyptian manner. Now, in order to train the eye and hand, it was the custom of the Egyptian sculptor to make innumerable trial-pieces before undertaking more important work. Many hundreds of these trial-pieces have come down to us, and show how thorough was the training imposed upon a young sculptor. There can be little doubt that the two craftsmen could easily come to an agreement as to the exact type of profile which should be adopted for the Apollo, and each could carve his half figure without further reference to the other.

One last point. When the halves were brought together for assembly, dowel-holes would be cut in each, and tenons fitted. The two halves would be glued together and kept under pressure till the glue had set. Some of the glue would be found to have squeezed out of the joint, and would need to be scraped off. At this time any slight lack of correspondence between the two halves would disappear, scraped off with the glue, just as any irregularity in a wooden box is 'cleaned off' with the plane after the parts have been glued together. The artist who fitted the two halves of the statue together could be trusted to put in any necessary finishing touches, and the coats of paint which all statues received would cover up all traces of the joint.

HERBERT MARYON.

EARLY ROCK-CUT TOMBS IN IRELAND

I. KELLY'S CAVE, CONG

In fine weather no visitor to the strip of land separating the great lakes of Corrib and Mask, who is also familiar with the limestone areas bordering the Mediterranean, can fail to be struck by their similarity to

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each other. To the south also the bare limestone hills of the Barony of Burren rising from the waters of Galway bay are even more Mediterranean in appearance.

The Cong isthmus is a western extension of a great area of flat and arid tabular limestone, bearing intermittent deposits of fertile drift material, and at Cong itself is abundance of water, as, in addition to the lakes, there are great uprisings from the subterranean ways by which the water of Mask reaches the Corrib. Aided by the more kindly climate of the Early Bronze Age, this combination of natural features would have produced a dry but well-watered region, free from forest but providing much land capable of cultivation; while immediately adjoining were the lakes teeming with fish, and a few miles to the west the wooded fastnesses of the Connemara mountains.

Thus the immigrant from Mediterranean countries would have found a desirable land well provided with the necessities and luxuries of life, and closely resembling his own home.

Good evidence that at least one family of the migrants or their descendants reached the isthmus is provided by a rock-cut tomb close to Cong, known as Kelly's Cave, which is typical of those in the Mediterranean lands, *e.g.* in Mallorca, Sicily and South France (near Arles), which extended also to the Marne in North France. It is, I believe, significant that both the French groups were originally close to large areas of water.

At Kelly's Cave, although it is much encumbered by rubbish and falls of rock from the roof and sides, many of the features which are typical of such caves as that of San Caulellas in Mallorca¹ can be clearly distinguished. About a dozen steps lead down in a sunken forecourt, 8 ft. to 10 ft. wide, of which the sides are of rock supplemented by dry walling. At the foot of the steps is a narrow entrance cut in the limestone, 5 ft. 6 ins. high and 2 ft. 6 ins. wide, with a slightly rounded top. The rock wall which it pierces is 2 ft. thick and inside is the main chamber; at the entrance the chamber is 8 ft. 6 in. wide, but its general width is 10 or 11 ft., its length some 50 ft., and its height varies from 10 ft. to 15 ft. (probably owing to falls of rock). The end at the entrance is roughly rectangular, the wall at the far end is curved, and in it, almost covered by loose stones is a low entrance leading to a second chamber—mainly of natural origin—which is now practically inaccessible.

The main chamber is probably partly natural also and owing to the hardness of the rock and its tendency to cleavage along the natural

¹ *Proceedings of the Prehistoric Society*, 1935, p. 110, pl. ix.

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lines, of which advantage was taken by the makers, it is sometimes difficult to distinguish between the work of nature and of man.

One feature, however, is undoubtedly ancient and of human origin ; along the sides of the main chamber are two low ' benches ' built up of small stones and now concreted solid by lime. So far as these benches are visible they precisely resemble those cut in the softer rock at most of the Mallorcan caves, and built up in some of the Scottish chambered cairns and one in Wales.²

Another point of resemblance is a platform ending in steps down, which occupies the first 6 ft. of the cave within the entrance.

In the left side is an alcove which may be natural, but has the appearance of a side chamber.

2. ST. KEVIN'S BED, GLENDALOUGH

This is of much smaller proportions than Kelly's Cave and has long been associated with Saint Kevin, who founded the early Christian settlement at Glendalough and died there in 618. Some 30 ft. above the upper lake, in a sheer rock face, is a rectangular opening 2 ft. 6 in. wide and 3 ft. 3 in. high. This is the entrance to a short passage, only distinguished from the main chamber by a low step and a slight widening of the walls beyond the step. To the left of the centre line is another comparatively wide ' passage ' which ends in a shallow recess, marked by a gathering in of the sides and roof to form what was ritually a side or end chamber, in spite of its small dimensions.

The greatest height of the main chamber is 3 ft. 7 in., with a width of 4 ft. 2 in. and the total length from the main entrance to the end of the side chamber is 6 ft. 9 in.³

The cave must have been practically inaccessible when first used, but approach is now made more easy by the breaking away of part of the entrance and of the adjoining rock, which is of a slaty nature, more easily worked than the limestone at Cong.

The site and plan of this cave closely resemble some in the great Sicilian cemetery at Pantalica.

Until quite lately no rock-cut tombs were known in Britain or Ireland, but the two examples here recorded complement the recent recognition of the chambers cut in the Dwarfie Stane at Hoy in Orkney as a tomb of orthodox Mediterranean type.⁴

W. J. HEMP.

² Bryn Celli Ddu in Anglesey.

³ *National Monuments, Ireland, Glendalough*. Revised 1925, p. 5.

⁴ *Proc. Soc. Ant. Scot.*, LXX, 217.

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THE INDUS CIVILIZATION

It is now clear from the more recent excavations in Sind, at Chanhudaro and elsewhere, that the Indus civilization endured over a long period of time and can be subdivided into phases distinguished by individual cultural manifestations like the predynastic Egyptian and pre- and protohistoric Mesopotamian civilizations.

Archaeological practice throughout the world is to designate such phases by conventional names taken from sites where the phase in question is well represented (*e.g.*, Badarian, Amratian, etc., in Egypt; al 'Ubaid, Uruk, etc., in Mesopotamia). In accordance with this established usage, Mackay has happily and euphoniously designated the best known phase of the Indus Civilization the Harappa culture: its immediate predecessor will presumably take its name from Amri, its successor from Jhukar. I do not know how one could write scientifically about ancient India today without employing such terms.

V. GORDON CHILDE.

SYMPOSIUM ON EARLY MAN, PHILADELPHIA

Dr Edgar B. Howard's discoveries of artifacts associated unambiguously with extinct animals in New Mexico doubtless provided the occasion for the Symposium on Early Man organized by the Academy of Natural Sciences of Philadelphia from 17th to 20th March 1937. But its deliberations were by no means confined to man's antiquity in the New World alone: Old World prehistory was represented by V. G. Childe and Dorothy Garrod (Britain), K. Birket Smith (Denmark), A. W. Brøgger (Norway), O. Menghin (Austria), H. de Terra (India), G. H. R. von Koenigswald (Java), Teilhard de Chardin (China), R. Broom (South Africa) and others. And the central aim of the organizers was to coordinate the several disciplines bearing on questions of man's antiquity and to inaugurate a concerted attack on the problem by geologists, botanists, zoologists and climatologists supporting archaeologists and anthropologists. The symposium did in fact provide an inspiring example of the cooperation of these several sciences and initiated a movement full of promise. 'Conclusions' that could be summarized in a few lines here could not result from a pioneer gathering: while it was agreed that makers of Folsom points coexisted with a 'pleistocene' fauna, how long that fauna persisted remains uncertain, and European typologists have nothing to set beside the type-fossil. However, a round table discussion on Asiatic chronology agreed upon some tentative correlations of the Indian, Japanese

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and Chinese sequences that may prove epoch-making. Such discussions together with long illustrated summaries of the formal papers will be published under the sponsorship of the Academy in a volume that all interested in early man should order now. V.G.C.

CARVED STONES, BRITISH SOMALILAND (PLATES V-VIII)

A study of Somali graves at Herirat on the British Somaliland-Ethiopian boundary revealed the fact that, on a number of them, stones of a distinctly phallic character had been erected. This discovery led to a search of the immediate vicinity, which brought to light a further number of carved stones of various types.

Herirat, which lies at the west end of a pass of that name leading from the coastal plain behind Zeila to Harar in Ethiopia, following the easiest route, is reputed by the local natives to have been the site of an old town, but no trace whatever exists to support such a statement. There are, however, a number of recent graves of the Esa Somalis and a large cairn of stones 18 feet high, probably a pagan burial of an earlier epoch, with the remains of a small building, originally about 10 feet square but now reduced to a mere pile of stones, in the foundations of which are revealed dressed slabs of corallian limestone.

The local natives did not notice that the carved stones had any suggestion of phallicism about them, until it was pointed out to them. They then suggested that they had been found on the site and made use of so as to save trouble. A number of flat dressed stones on the site had also been incorporated in Somali burials and are of the same corallian stone as the carvings. There can be little doubt that the dressed stone was removed from the square building referred to above.

The carved stones which were first noted are shown in PLATE V and can be observed at both ends of the grave ; another similar type of symbol also associated with a grave is shown in PLATE VI ; it was possible to remove this and it is now in the Department of Ethnology at the British Museum. Another carved type which resembles a winged nut on a bolt is depicted in PLATE VII ; it was being utilized as the head-stone of a grave. Two other carved stones were found leaning up against the headstone of another grave ; they each have four square prongs on the top. It is interesting to observe that a raised ring is carved round all the stones depicted on plates V-VII.

The stones which it has been possible to examine all taper very slightly towards the base and were clearly intended to be free-standing.

PLATE V



ESA SOMALI GRAVE WITH CARVED STONE OF PHALIC CHARACTER AT EACH END (see p. 352)

facing p. 352

PLATE VI



CARVED PHALLIC STONE NOW IN THE BRITISH MUSEUM (*see p. 352*)

PLATE VII



CARVED STONE RESEMBLING A WINGED-NUT ON A BOLT (*see* p. 352)

PLATE VIII



GRAVE AT HORE, SOMALILAND (*see* p. 353)

PLATE IX



(2) GRAVE WITH 'OFFERINGS' OF WHITE QUARTZ PEBBLES
AND SEA SHELLS, LLANDDANIEL, ANGLESEY (*see p. 355*)
ph. S. Piggott



(1) BAETYL OF BLACK IGNEOUS ROCK SURROUNDED BY WHITE QUARTZ
PEBBLES (*see p. 355*) PENMARCH MUSEUM, FINISTÈRE,
ph. C. M. Piccott

PLATE X



BAKING OVEN, CHILE (see p. 355)

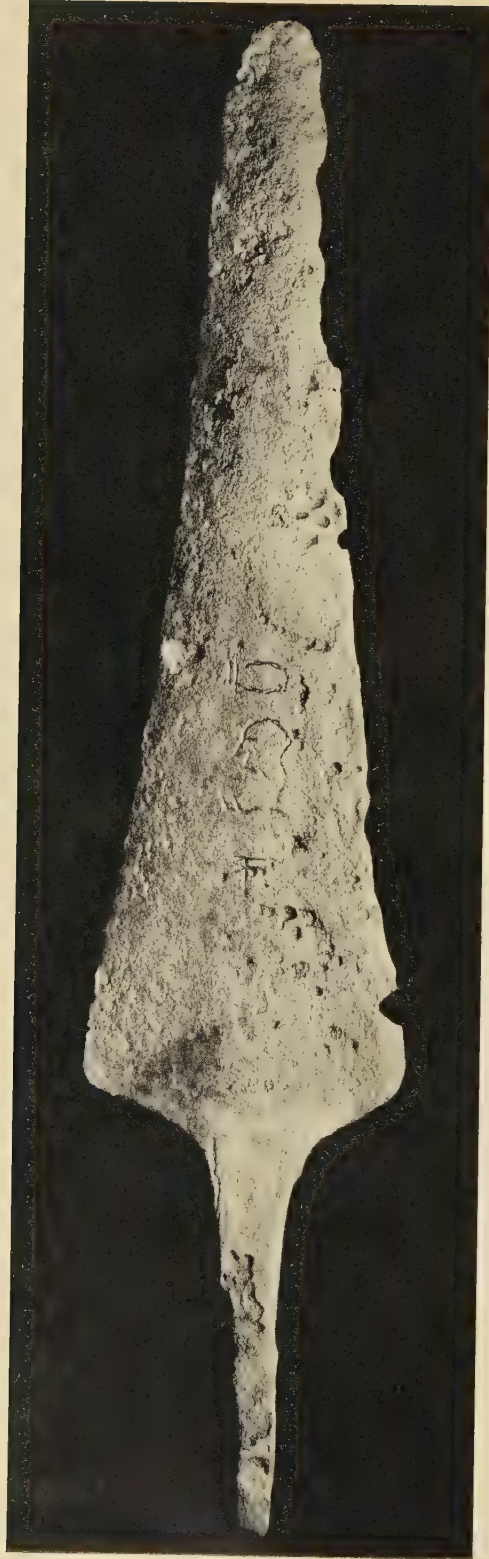
PLATE XI



BOWL FROM AN EARLY BRONZE AGE NECROPOLIS AT
VOUNOUS, CYPRUS (*see* p. 356)



EARLY BRONZE AGE TOMB, VOUNOUS, CYPRUS (*see* p. 356)



BRONZE DAGGER OF HYKSOS DATE (c. 1700-1555 B.C.) WITH INSCRIBED SIGNS (*see* p. 359)

ph. J. L. Starkey

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A further search in the thick bush nearby revealed the site of a graveyard of a type associated with the Arab towns of Somaliland and clearly not Somali, in which the graves were outlined with thin stones set on edge. Though the cemetery was all overgrown it was possible to pick up several pieces of carved stones (see FIGURE).

After much inquiry from guides I elicited the fact that there was an ancient building at Hore, seven miles distant, through the pass and down the caravan track towards Zeila. I visited it at the first opportunity and found the remains of a square building with walls about 10 feet high, well built with an arch across the centre to support the roof. It



OUTLINE OF BROKEN CARVED STONE
AT HERIRAT, SOMALILAND ($\frac{1}{3}$)

was impossible to decide in one short visit whether the building was a dwelling house or a tomb. It was evident that there had been windows about 2-foot square, and I picked up the corner of a carved stone lattice-work window. Round the building were a number of graves and some six were conspicuous by the large blocks of dressed stone of which they were made, and on one of these, depicted on PLATE VIII, there was a small stone object about 15 inches high. It is impossible to say for how long it had been there or for what it was meant to represent, but it had clearly been carved with a certain suggestion of phallicism. The stone trough in which it rests is one solid piece of corallian rock, while the outer border of the grave consists of four slabs set on end. Outside, and in line with the centre of the grave, there stands an upright round pillar about 4 feet high.

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It is difficult to associate these two isolated groups of stone carvings with any culture. No stone work or carving is carried on today by the Somalis, who are essentially nomads. The Esa tribes, in whose country the sites lie, have many of their Mohammedan customs tinged with paganism¹ and they are also excellent carvers of utensils in wood on which they employ Coptic interlacing patterns freely; but although I have spent many months camping and trekking about their country I have never seen any attempt made to carve or dress stone.

In none of the graveyards of the Arab towns of Somaliland have any carved stone monuments resembling those above come to light, but in some of the sites of towns there have been found pieces of platters and bowls fashioned in steatite.

Monuments with a similar phallic motive, but on a much larger scale, have been recorded from Sidamo and other Galla provinces of southern Ethiopia.² It is possible that a connexion exists between the symbol stones of British Somaliland and those from southern Ethiopia; indeed history lends support to the possibility and relates that, following on the fall of the Mohammedan kingdoms, including Harar, Zeila, etc., in 1575, parts of them fell into the hands of the Galla.³ No details are available to show the extent of their occupation but it is within the bounds of possibility that these invaders left traces of their cult at Herirat and Hore. The pagan customs which characterize the Esa, and to a lesser extent the Gadabursi, who are their eastern neighbours, are no doubt a heritage from the Galla.

The discovery of obsidian flakes and cores on the sites of some of the ruined Arab towns, which lie some 40 miles east of Herirat, and a similar find by Captain R. H. R. Taylor at Aghresalam in Sidamo in 1936 form a further connecting link between Somaliland and southern Ethiopia.

A. T. CURLE.

WHITE QUARTZ PEBBLES AS FUNERARY OFFERINGS (PLATE IX)

The custom common among primitive peoples, of placing white stones and sea-shells as funerary offerings was commented on in the

¹ J. Parkinson, 'Customs in Western British Somaliland', *Journal Royal African Soc.*, July 1936.

² Azais et Chambard. *Cinq années de recherches archéologiques en Ethiopie*, part III, chap. II.

³ Ahmad Ibn Al-Kadir, *Historie de la Conquête de l'Abyssinie*, XVI siècle, p. 28. (Publications de l'École supérieure des lettres d'Alger),

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pages of *ANTIQUITY* nearly ten years ago,¹ when in addition to examples of Bronze and Early Iron Age date in Britain, instances were cited of the continuance of the custom in Baluchistan and, nearer home, on the west coast of Scotland. The photographs on *PLATE IX* show two additional examples. No. 1 shows a small baetyl of black igneous rock which was found buried in the sand near the church of Tronoan in Finistère, and surrounded by white quartz pebbles.² The whole group has been reconstructed in the museum of Penmarc'h, in Finistère, where the photograph was taken this year. There is no actual evidence of dating, but it and similar 'lechs' in Brittany are assigned to the Iron Age.³

The second photograph was taken in 1928 in the churchyard of Llanddaniel-Fab in Anglesey, and shows the best example of several graves which were adorned with 'offerings' of white quartz pebbles and sea shells.⁴ It seems that we must see in these modern examples the continuance of a practice which in Anglesey itself is well attested in the megalithic tombs of that island.⁵

STUART PIGGOTT.

CHILEAN BAKING-OVEN (*PLATE X*)

Mrs FRANCES ROPER writes:—Baking ovens are in common use among the natives of the Andean regions of Chile. We saw quite a number during our tours round, and they struck us as so similar to those we had seen during the excavations at Maiden Castle that we secured some photographs, as this specimen was a particularly suitable subject. I am standing by the oven, in order to give an idea of the size, which is approximately 4 ft. high and 4 ft. diameter outside. There is a similar opening on the other side of the oven, which is very neatly finished inside and out, the interior being whitewashed. The walls and dome are roughly 12 to 15 inches in thickness; and the raised base under the oven is built up of rough rubble and adobe. As far as we could make out the fire is lighted inside the oven, which heats the thick walls and causes them to retain sufficient heat for cooking, after the manner of the old fashioned bread-ovens in England. The whole structure is of adobe reinforced by a few stones round the two

¹ *ANTIQUITY* 1928, II, 90, 358.

² Le Pontois, *Le Finistère Préhistorique* (1929), 263.

³ Octobon in *Rev. Anthropol.* 1931, XLI, 387; cf. also *Ant. Journ.* 1934, XIV, 59 and refs.

⁴ Cf. *Bull. Board Celtic Studies*, 1935, VIII, 87-90.

⁵ At Bryn Celli Ddu (*Arch.* LXXX, 209) and Pant-y-saer (*Arch. Camb.* LXXXVIII, 208 ff), though curiously enough, not at Bryn-yr-hen-bobl, *Arch.* LXXXV, 274.

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doorways ; it is apparently shaped and smoothed entirely by hand, and, as is shown in the photograph (PLATE X), is of most symmetrical outline.

The photograph was taken during an expedition from Santiago, in the region of Angostura, at an altitude of about 2,000 feet.

EXCAVATIONS AT VOUNOUS, CYPRUS (PLATE XI)

An expedition sponsored by the British School at Athens is continuing the investigations inaugurated by the Cyprus Museum and the Louvre at the Early Bronze Age necropolis at Vounous, about 6 miles East of Kyrenia, on the north coast of Cyprus.

Work has been concentrated on two portions of the site :—A, the extreme eastern fringe, about 500 yards from the area previously explored (Schaeffer : *Missions en Chypre*, 1932–35) ; B, on the south-west edge of the area excavated by the Louvre.

On site A, which proved to be of great interest, 25 tombs were opened, all characterized by the use of pottery with a marked stump base, and offering a less developed series of shapes than the usual E.C. types. A large proportion of the graves contained single burials, a factor of some importance for the eventual arrangement of the internal chronology of early Cypriot pottery. The usual attitude of burial was a crouched position on the left side, most commonly with the head to the chamber entrance, though no fixed rule of orientation was observed.

Among the finer pieces of pottery is a deep bowl, with a set of three incised figures, possibly representing masked dancers.

The 27 tombs opened on site B, while archaeologically of less importance, produced a quantity of the better known early Cypriot shapes and fabrics, offering several points of contrast to the finds from site A. All these tombs had been in use over a comparatively long period.

It is hoped that in the autumn it will be possible to excavate a series of tombs connecting areas A and B, and to continue the search for the settlement.

JAMES R. STEWART

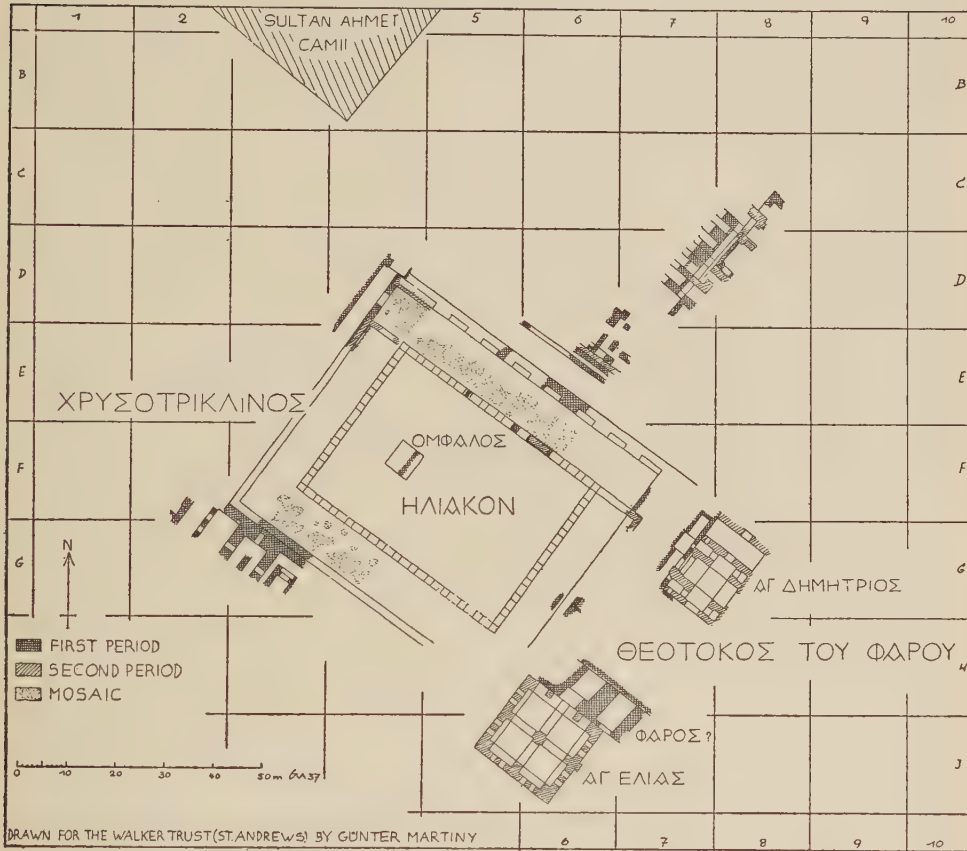
BYZANTIUM (PLAN)

Excavations have been carried out in the summers of 1935 and 1936 in the Sacred Palace of Byzantium, under the direction of Professor Baxter. The Walker Trust of St. Andrews University has undertaken these excavations, which are still in progress, in the hopes of establishing the topography of the Palace.

The site chosen lies southeast of the Sultan Ahmet Mosque. The

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most important result has been the finding of a colonnade 66.6 metres long and 56.6 broad surrounding a courtyard. There must have been thirteen columns in the long sides, which ran northwest to southeast ; and ten in the short. The floor of the long sides of the colonnade was



THE SACRED PALACE OF BYZANTIUM

9.2 metres wide, and opposite each alternate inter-columnation there was a marble seat set in a recess.

There were two periods in the history of the colonnade, the second of which ended in the destruction of the building by fire. The beginning of this period is marked by the laying of a marble pavement, and an alteration of the stylobate. It was presumably at this time that the

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northwest side became incorporated in the courtyard. The marble pavement replaced an already damaged mosaic floor, portions of which have so far been uncovered on two of the four sides.

Below this mosaic there were some seven metres of made earth dumped at a time prior to the planning of the stylobate of the colonnade. The mosaic has a wide border of acanthus leaves seen in profile, with birds, flowers and fruit, bounded by a border of a ribbon pattern. The main panel contains individual scenes, standing freely or on coulisses, and each on a separate scale, of men and animals in scenes of country life and hunting, among trees and buildings. The white background is a pattern of fans. In style and technique it is comparable to contemporary mosaics, notably those at Yakto, with which it has many features in common. The workmanship, however, distinguishes it from all contemporary mosaic work. The fan ground is regular throughout, the scenes are not crowded, the tesserae are small and closely laid. Further, the repertoire is large, and the individual scenes and figures display a high artistic sense and a full control of the medium. An inscription has not yet been found; but internal and external evidence suggest a date in the first quarter of the fifth century.

Northeast of the courtyard a large trench has been excavated, 58 metres long and 9 metres broad. This has revealed part of the substructures of what was probably a small church, in the narthex of which there were numerous burials. This church adjoined a large building whose shape and size are as yet unknown.

Quantities of potsherds were found in the area, and with the help of stratigraphy and coins it is possible to trace the development of the glazed wares. What may be called a Late Isaurian phase can be clearly distinguished from those of the Macedonian period. Traces of earlier Isaurian ware have also been found. About the beginning of the Comnene period there appeared an entirely new class of white-bodied pottery, which frequently has painted designs. It replaces almost completely the older fabric. A few examples of red-bodied ware, some with graffito decoration, also occur at this period.

On the southeast side of the courtyard are two substructures that have long been accessible; one of which is part of a church. Between them is a building of which only the outer walls are known. This building is bisected by the long axis of the courtyard. It may be suggested that these three substructures are those of the three churches of Our Lady of the Pharos, St. Demetrius and St. Elias. The courtyard may then be identified with the Heliakon. Some brick masonry which

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may be part of a Pedestal would then represent the Omphalos with the Porphyry Stone, which stood in the centre. Further excavations on the northwest side of the courtyard reveal the Chrysotriclinos. G. BRETT.

ORIGIN OF OUR ALPHABET (PLATE XII)

With the kind permission of the EDITOR of THE TIMES, and of DR ALAN H. GARDINER, we are able to reprint the important letter by the latter which was published in THE TIMES of 16 July. We are also indebted to MR J. L. STARKEY for the illustration of the bronze dagger on plate XII.

TO THE EDITOR OF THE TIMES

‘ On a number of different occasions you have opened your columns to new information in connexion with the origin of our alphabet. In this respect the important excavations conducted at Tell el-Duweir by Mr J. L. Starkey for the Wellcome-Marston Archaeological Research Expedition have been particularly prolific. On June 9, 1934, you reproduced the inscription on a ewer dating from about the time of Rameses II (thirteenth century B.C.) and this, as I pointed out in a letter published in *The Times* a few days later, drew special significance from the fact that the characters obviously stood midway between the much-discussed semi-hieroglyphic Sinai script and the later Phoenician alphabet, just as Tell el-Duweir itself, the ancient Lachish on the borders of Philistia, lies geographically midway between the peninsula of Sinai and the coast towns of Phoenicia. On June 24, 1936, you depicted a similar inscription of about the same date, and on October 17 of the same year the late Professor Langdon attempted the decipherment of yet a third bowl inscription of like character. In spite of all difficulties in interpretation—and it must be frankly admitted that no certain meanings have been derived from these brief texts—Mr Starkey’s inscriptions all tell the same clear tale. They exhibit what is probably the oldest indigenous Palestinian script shorn of its purely pictorial elements, and thus well on the way to becoming the non-pictorial writing familiar from the early Phoenician and Aramaic alphabets, as well as the oldest forms of Greek.

A further discovery from the same site, made public by Sir Charles Marston in January, goes far towards corroborating this conclusion, while, as seems inevitable in archaeological discoveries, raising new problems of its own. The cleaning of a bronze dagger of undoubted Hyksos date (about 1700-1555 B.C.) brought to light a vertical inscription of four signs [see PLATE XII], of which the second, a clear man’s head,

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evidently corresponds to the same sign in the Sinai script, where on the strength (1) of the letter-name *rēsh*, signifying "head", and (2) of the rough resemblance of the Phoenician letter, it had been identified by me as the prototype of our own R. The third sign appears to be the snake common in the Sinai texts and possessing a fairly clear descendant on the above-mentioned ewer; this had been identified on similar grounds as the original N. The first and last signs on the dagger are much more obscure. A desperate conjecture might equate the former with the "door" D or with the "noose" that some (*e.g.*, Professor Butin) take to be S, the Hebrew *šādē*; for the latter the only conceivable identification would be the "cross" or "mark" T, although both the earlier and the later forms of this have elsewhere one bar, not two. What the word DRNT or SRNT might mean I cannot guess; an uncompounded proper name in Semitic would probably consist of three radicals only.

The importance of the new find lies partly in its providing a link between the Sinai inscriptions and those previously found at Tell el-Duweir, and partly in the inference to be drawn from the finding of unmistakably pictorial letter-shapes as late as the Hyksos period. Mr Starkey has shown me that there can be no doubt as to the date; the dagger was found in an untouched tomb-group with two characteristically Hyksos scarabs, good pottery of the same period, as well as other objects. Now if the generally accepted theory be right, we cannot here be far removed from the actual invention of the alphabet; for the whole of the history points to a rapid degradation from pictorial to linear and non-pictorial forms. Hence the late Professor Sethe's hypothesis that the Sinai inscriptions belong to the Hyksos period may perhaps become preferable to my own view assigning them to the end of the Twelfth Dynasty.

It has to be admitted that the appearance on the dagger of two signs that cannot readily be identified with equivalents in the Sinai script presents a new obstacle in the way of accepting the latter as the prototype of the Phoenician alphabet; on the other hand the two signs that can be so identified are no less strong confirmation of that theory, to which an increasing number of scholars are now leaning. I am personally convinced that, though much remains to be explained, the inscriptions from Sinai and Tell el-Duweir do really contain the key to the origin of our alphabet, and that no equally plausible case can be made out for its origin from the cryptic and very ancient hieroglyphic writings that have of recent years been discovered at Byblos.'

Reviews

THE FOUNDATIONS OF ROMAN ITALY. By JOSHUA WHATMOUGH.
Methuen. pp. 413, 11 plates, 8 maps, and 148 text-illustrations. 25s.

'Foundations of Roman Italy' is a fine stalwart title. It promises a great deal and it implies much that is new. The reviewer therefore may venture on a few words of independent introduction in order to explain the exact functions of a book which falls outside the more usual classifications. For though it is included in a series entitled 'archaeological handbooks' it contains much besides archaeology, and it is precisely the non-archaeological content which is strikingly new and original.

Be it said then that Roman Italy, as the historian knows it, was the unexpected and almost unwanted child of the Roman Republic, and only came to maturity after several centuries of the most haphazard upbringing. It was scarcely full-grown at the beginning of the first century B.C., and for some time after the death of Augustus several regions still maintained a good deal of their individual character, no less than the use of their peculiar languages or dialects. For it must always be remembered that ancient Italy was a patchwork of many races and many cultures, some of which bore no relationship whatsoever to the forceful nation which unified them, while others were only connected with it by the distant identity of an exceedingly remote parentage. It was long before the mere process of colonizing the peninsula was complete. From early neolithic times to the seventh century B.C. there was seldom any long cessation in the movements of greater or smaller bodies of newcomers. Even when a partial equilibrium had at last been established it was more than once disturbed, possibly by raids from the Balkans and certainly by large incursions of Celtic tribes from beyond the Alps.

We learn nothing of the origins, customs, languages or civilization of these numerous peoples from Roman writers, who indeed regarded them chiefly as mischievous obstructions to the extension of Roman law and order. A few references in Greek historians are valuable but they are very scanty and brief, while the writers of Magna Graecia who must have possessed much valuable information have perished with all their works. By the time of the standard geographers only a few vague and confused traditions had survived. It will therefore always be impossible to construct any sort of intelligent account of pre-Roman history from literary sources.

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In recent years however archaeology has accumulated an amount of material which is quite sufficient to afford a fairly complete view of northern and central Italy, and to give some idea of the pre-Roman conditions even in the south. Now comes the opportunity for Professor Whatmough, who has command of a source of information which is comparatively new—the study and analysis of the ancient languages. Well-known in England before he migrated to Harvard he recently produced a great work on the ‘*Prae-Italic Dialects*’, which together with some earlier studies, forms the background of much of his reasoning in the present work. The skill with which he uses this instrument, and the dexterity with which he weaves the new material into the results already obtained by archaeology, give this volume its peculiar character and interest.

It opens with four introductory chapters of general range. The reviewer is especially impressed with the excellence of the geographic treatment in chapter 2, which is based on the best work of modern geographers, from the classic ‘*Landeskunde*’ of Nissen to the ‘*Mediterranean Region*’ of the incomparable Ellen Semple. In accordance with present trends much emphasis is laid upon climatic theories such as those of Brooks. These chapters are followed by a regional survey of the entire country, including Corsica and Sardinia as well as Sicily. Of the archaeological epitome, which forms one of the two principal themes it need only be said that it has been done most conscientiously and well. Every major work has been studied with the minutest care, while many writings of minor content have obviously been consulted and are duly listed in the bibliography attached to each chapter. Numerous cuts and figures distributed through the text both illustrate the subject and lighten the reading. There must be many who will be glad to have within the covers of a single light volume this short but trustworthy résumé ranging from the Palaeolithic to the Hellenistic period.

Pari passu with the archaeological summary runs the discussion of linguistic evidence, diversified by occasional references to literary tradition and to any hints that can be drawn from customs and religion. It is impossible to cover this large field in a review, but three striking cases may be selected for notice. It is clear that for the solution of the Etruscan question the aid of philology is indispensable. Our author’s treatment of this exceedingly difficult problem is distinguished at once by its sobriety and its unhesitating decision. Like all Etruscologists he has had to endure much nonsense, but this does not deter him from following a well-marked if thorny track. He is of course far too wise to waste any time on chimerical systems of translation. Pending the discovery of a bilingual, which must certainly happen in due time, some quite unquestionable results can be obtained by sheer philological analysis on a received scientific basis. I quote as examples three striking pronouncements—‘Nothing is so

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certain as that the Etruscan language . . . is in no sense Indo-European'— 'Evidence is accumulating that already suggests very clearly what the final conclusion will be, namely that the Etruscan language belongs to an early stratum of Mediterranean speech now known to us rather imperfectly in Asia Minor and various places in the Aegean'— 'There is scarcely room any longer to doubt the Anatolian affinities of Etruscan'. Prof. Whatmough altogether rejects the view, still held by one or two Italian scholars, that the Etruscans were an indigenous people in Italy. But he makes the interesting suggestion that an early stratum of pre-Aryan language may have extended as far as Italy, in which case the Etruscan invaders when they landed may possibly have found the country inhabited by a people whose speech was akin to their own. Reviewing the combined evidence he accepts what is now the most orthodox theory which regards the Etruscan invasion as that of a small number of men, qualified by their superior gifts to become overlords, coming across the Aegean in single ships or small convoys, possibly at intervals of some years, beginning in the ninth century.

In contrast with the Etruscan invasion it is interesting to read that the numerous inroads and settlements of Gauls in northern and northeastern Italy had little or no permanent effect. These intruders were rapidly absorbed and there is scarcely any trace of them left by the first century B.C., though several cemeteries with La Tène objects attest the fact of their arrival. The Gauls were responsible only for enlarging the Latin vocabulary with a certain number of words, chiefly descriptive of riding, driving, dress, and equipment. The deep-laying affinities long recognized between Latin and Celtic are due not to these late invasions but to a much older contact in the original home of all these peoples outside Italy itself.

Near Pesaro, not far from the *ager gallicus*, a group of inscriptions has been found which dates from long before the Gaulish invasions. They are of the seventh century, and it is still an unsolved question whether they are Illyrian or of native parentage. Undoubtedly Illyrian however is a group of inscriptions from the neighbouring territory of Picenum, where archaeology also detects Balkan influences. This Illyrian element all down the Adriatic coast is in general indicated far more clearly by philology than by archaeology, partly no doubt because Illyria itself is almost unexplored. Philology plainly shows that the Veneti, as Herodotus actually stated, were of Illyrian origin and that the Messapic and Iapygian dialects of southeastern Italy were also Illyrian. It is possible even that ancient Sicel may belong to the same group. The constant interaction of the two sides of the Adriatic is an important fact, now clearly established.

Classical scholars may find a more congenial and familiar atmosphere in the

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chapter dealing with Oscans, Sabellians, Umbrians, and those Italic tribes which are more nearly related by speech and customs to the Romans. These subjects are treated with the same thoroughness and insight. Enough has now been said to show that this book contains the long desired Prolegomena to Roman history. As it is remarkably easy and pleasant to read it should be assured of a wide popularity.

DAVID RANDALL-MACIVER.

MEDIEVAL SPANISH ENAMELS and their relation to the origin and development of Copper Champlevé Enamels of the twelfth and thirteenth centuries. By W. L. HILDBURGH. *Oxford University Press*, 1936. pp. xiv, 146, and 24 plates. 16s.

This book is one of the most important works on the minor arts of western Europe in the early Middle Ages that has appeared in recent years. Its target, though not its main content, is that extensive body of material with which most of us have some general acquaintance, the early copper champlevé enamels of the kind that we are accustomed to label without any hesitation as 'Limoges' work; for it is Dr Hildburgh's purpose to show that this customary attribution, while not invariably correct, is in many important instances wrong and based on a serious misconception of the history of the enamel-craft in Europe. His contention is that the medieval Limousin enamelling industry cannot be shown to have had its origin in south-central France, a province in which not only the requisite technical experience is lacking, but also the necessary supply of copper; whereas, on the contrary, in Spain the history of enamelling provides precisely that background to the medieval industry which is needed to account for the sudden development in western Europe of the champlevé technique at the beginning of the 12th century, not only at Limoges but even in the north as well. Accordingly, it is the full story of the Spanish enamels that Dr Hildburgh sets forth in this book, secure in the knowledge that if his account of them be eventually endorsed, the Limoges bubble is thereby well and truly pricked, to say nothing of the new light that is thrown on the general history of the enamel-craft.

The first point made is that it is no longer possible to pretend that the 12th century copper champlevé enamels of Spain were imported pieces or the work of journeying Limousin craftsmen; here the evidence of the very important 'Silos' group of enamels is overwhelmingly in favour of a purely Spanish origin for the pieces concerned; and, this granted, it can be shown that much that is typical of early 'Limoges' work in our museums—which we have accustomed ourselves to regard as characteristically French—is really a Spanish development, for instance the 'vermiculé' backgrounds that are here shown to be engraved imitations of designs originally executed in filigree, and also the

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familiar floral scroll. There was a vigorous Spanish school, in fact, capable of setting a fashion for the *champlevé* enamels that was afterwards followed at Limoges. But that Spanish work also influenced the northern craftsmen and was ultimately responsible for the brilliant enamels of the Mosan and Rhenish schools, is a claim that Dr Hildburgh is wise enough to put in its mildest form, asking us simply to consider the probability that copper *champlevé* enamels, made in Spain and brought to the north by pilgrims and traders, provided the necessary inspiration for the striking change in the appearance of northern metalwork that takes place when Eilbertus used for the first time backgrounds of coloured enamels in those 'sunk-field' areas that had been left empty in the earlier work of Roger of Helmershausen; for it is agreed that nothing more would be required than Spanish example, inasmuch as the northern craftsmen were already highly skilled.

But how comes it that Spain, outstripping France and the north, was thus ahead with the *rediscovery* of the copper-*champlevé* technique?—for neither Dr Hildburgh nor anyone else supposes that the medieval work is a direct continuation of the provincial Roman schools. Here Dr Hildburgh would answer, if I understand him aright, that inasmuch as gold *cloisonné* enamel (to say nothing of a gold *cloisonné* in sunk-field that imitates *champlevé*) can be shown to have been made in Spain in the 9th century and later, we start with the enamel-craft as established and have only to look for reasons for a change-over to the *carver's* technique represented by *champlevé* proper and for the use of the locally abundant copper. As to this last point, we are asked to consider the impoverishment that resulted from the Reconquest, and the inevitable demand that sumptuous ecclesiastical furniture should be made in something less costly than gold, so that the extensive use of gilt copper is natural enough; and as for the requisite carver's technique, it was already commonly employed in Spain, both for niello-work and for ivories.

On documentary evidence it can be shown that copper *champlevé* enamelling was made in Spain as early as the first decade of the 12th century, and if Spain thus has a priority in this craft, we have only to imagine the inevitable transport of some of the easily portable Spanish works to France in order to understand how it came about that Limoges, stationed on one of the great diagonal high-roads across France, became a natural centre for the general distribution of these wares from Spain. Dr Hildburgh does not deny that there was in course of time a 'Limoges' industry; but it was Spanish-born and was cradled in the strangers' quarter of the city; and the centre-point of his case is that the most famous and the earliest works at present believed to be Limousin are in reality Spanish. Thus he claims for Spain several pieces of outstanding importance, for instance the celebrated late 12th century Geoffrey Plantagenet plaque at

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Le Mans and the early 13th century ciborium of Alpais in the Louvre ; for Master Alpais, though he may have lived at Limoges, is quite likely to have been a Spanish oriental, Al-Faiz. Indeed the markedly oriental character of some of the Limoges pieces, as exemplified in the use of imitation Arabic characters and in colour-styles, is very easily accounted for if the Spanish source of the work be admitted.

The type of Limoges enamel that we know best is the kind that was produced in abundant quantity at the end of the 12th century and in the first half of the 13th. It is no part of Dr Hildburgh's case to deny that much of this work was made at Limoges, and he is at pains to emphasize the great difficulty of distinguishing between the French work and the Spanish at this period. But though the growth of the Limoges school may have harmed the Spanish industry at such places as Silos, it is not likely that the schools which were responsible for the existence of the Limoges work-shops should have come to an abrupt end, and Dr Hildburgh is anxious to prove that many magnificent enamels were still being made in Spain in the early 13th century. He examines accordingly a number of notable pieces, chief among them the San Miguel retable in Navarre, that he declares to be Spanish, supporting his views with as great a wealth of detailed argument as he had used in defence of the Spanish origin of the earlier pieces.

I should like to be one of the first to say that I think Dr Hildburgh has been successful in proving the existence of an important enamelling-industry in early medieval Spain, an industry of the requisite calibre to have had an effect on the crafts of other countries. The existence of this is in itself a serious challenge to what the author calls the 'Limousin hypothesis', and it is obvious that in future there will have to be much circumspection before we embark on our accustomed 'Limoges' attributions : but I do not consider that Dr Hildburgh has completely discredited Rupin's case, though he has shown that it is much weaker than is commonly imagined.

T. D. KENDRICK.

NORDISK KULTUR (Del 16 : HANDEL OG SAMFERDSEL). Published by the Clara Lachmanns Fund. Oslo: *Aschehoug & Co.*, 1934. pp. 360, with text-figures.

Part 16 of the collective work on Northern Culture, supported by the Clara Lachmanns Fund, deals with trade and communication and is divided into two parts. Part A covers prehistoric times and is edited by Dr Brønsted of Copenhagen, while part B, edited by Dr Schück of Stockholm, deals with the medieval period.

Part A includes chapters on prehistoric trade in each of the four Scandinavian countries. They are written by leading prehistorians, but in rather popular

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style and the illustrations are mostly well-known. The bibliographical references will, on the other hand, be found useful to the reader with more specialized interests. Much the same themes recur in each of these chapters, *e.g.*, the diffusion of south Scandinavian flint and of various types of stone, such as the famous red Ångermanland slate, the amber trade, metal types of the Bronze Age, and so on up to the Viking period. The part is concluded by a chapter on prehistoric ships by Shetelig, who makes use of rock-engravings but depends naturally in the main upon the actual remains of ships in which Scandinavia has proved so rich.

Part B is mainly historical in treatment, but includes many features of particular interest to archaeologists, notably the four chapters on roads in Denmark, Norway, Sweden and Finland respectively: in each case these accounts are accompanied by maps. Finally one might mention the chapter on land-transport by Gosta Berg which covers wheeled vehicles, various types of sleds, as well as skates. Berg mentions some of the very interesting discoveries of sledge runners and skates made in Swedish and Finnish bogs; in many cases these can be dated by pollen analysis, several finds being assignable to Neolithic times.

J. G. D. CLARK.

BIBLE AND SPADE: an Introduction to Biblical Archaeology. By Rev. STEPHEN L. CAIGER. *Oxford University Press*, 1936. pp. 218, and 24 illustrations. 5s net.

This book is a short summary of recent results of excavation in the Near East and their bearing on the narratives of the Old Testament. It will be very useful to teachers and students, since it is accurate, up to date, and, on the whole, impartial. The author is catholic in his quotations from the vast body of literature about the relation of archaeology to the Bible, and, in a book which is intended for the use of teachers, one could wish that a little more discrimination had been exercised in the choice of 'authorities'. Writers of an earlier date, whose theories are no longer accepted by archaeologists; authors of popular accounts of modern excavational results; propounders of doubtful hypotheses generally rejected by the main body of Oriental scholars; are found side by side with archaeologists and Semitic scholars of first-hand knowledge and unquestioned authority. This may be misleading to those who are not in a position to distinguish between what is authoritative and what is not.

But when this has been said, and apart from a few minor inaccuracies and omissions, the book deserves a welcome as a most useful compendium of modern knowledge of the whole field of archaeology as it relates to the Bible.

One or two corrections should be made in any subsequent edition. The identification of Amraphel with Hammurabi is now regarded as extremely

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doubtful, while the equation of Ellasar with Larsa is definitely rejected. The identification of Tidal no longer rests on the doubtful evidence of the Spartoli Tablets, but Böhl's analysis of the new Hittite material points to Tudhaliash III as the figure corresponding to the Tidal of Gen. 14. The whole question of the date of Abraham's entry into Canaan needs revising in the light of Speiser's important monograph *Ethnic Movements in the Near East in the 2nd Millennium B.C.*

A less important point concerns the credit for the decipherment of the script of the Ras Shamra Tablets. Bauer, Dhorme, and Virolleaud, working independently, reached solutions of the problem in its essentials about the same time. T. H. Gaster, who has done very valuable work in the translation and interpretation of the texts, cannot be credited with the decipherment of the script.

The remarks on p. 92 concerning the comparison between the Code of Hammurabi and Hebrew legislation require some qualification. It is not clear whether the author intends to compare early Hebrew laws, such as those contained in the Book of the Covenant, or the later Deuteronomic and Priestly Codes, with the Babylonian. In the Hebrew regulations relating to the liberation of slaves, and to the curious case of the goring ox, the Babylonian code is distinctly more lenient than the Hebrew.

The illustrations are good, though we should have welcomed a greater number of new ones, of which so many are now available. It is a little surprising not to find the oldest and most important periodical in English dealing with Palestinian archaeology, the *Quarterly Statement of the Palestine Exploration Fund*, in the list of periodicals on p. 205, the more so, since the photograph of Mr Crowfoot's excavation of Samaria has been taken from that journal.

S. H. HOOKE.

THE ENGLISH CASTLE. By HUGH BRAUN with a foreword by HILAIRE BELLOC. *B. T. Batsford*, 1936. pp. VIII, 120, 120 *photographs, with text-figures.* 7s 6d.

A commendable feature of this volume is the number and high quality of its illustrations. These of themselves tell much of the story more graphically than any literary exposition. Incidentally they may also prompt some questions which an unsophisticated enquirer might well ask—why, for example, an obvious tower within an obvious wall on the mound at Launceston (p. 45) should have the puzzling legend below: 'a round Tower-Keep within a Shell-Keep'. He will scarcely be enlightened by the information in the text that 'keep' is a word 'of late origin' applied to a tower (p. 30), so that 'tower-keep' seems tautologous; while 'shell-keep' is the stone wall round the top of a mound

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and so neither a 'shell' nor, in the sense given, a 'keep'. It is not that 'a stone walled motte has come to be called by archaeologists a shell-keep' (p. 51), but that they, knowing better, have chosen to continue an admitted misconception on the part of G. T. Clark.

This case, however, is but part of the general confusion imposed, in the judgment of the present writer, on the study of castles by the use of the term 'keep', unknown to medieval builders, chroniclers, or 'castellans' but strangely indispensable for modern writers. Mr Braun can certainly claim that, in using it, he is on the side of the 'archaeologists'. Whether his personal applications of it will be approved is another matter.

'It is thought', he writes, 'that the reason why so few domestic buildings were erected prior to the year 1000 was the popular belief that the world would come to an end with the first millennium' (p. 28). Anyone encumbered with that 'thought' should get rid of it. He need not then follow our author in concluding that thereafter 'many relieved castellans were turning their attention to rebuilding their timber castles in stone', when 'it seems to have occurred to them that while they were doing so they might just as well make the houses themselves defensible', whereupon they set about to 'modify' the original timber hall 'into something resembling a tower'. So Mr Braun passes on to his categories of 'hall-keep', 'tower-keep', 'chamber-keep' (p. 44), Chepstow as 'a sort of keep' (p. 76), a hall at Clare Castle 'which cannot be classed as a keep' but 'is nevertheless planned on the same principles as one' (p. 79) and other refinements.

Chronologically Mr Braun lays out three main periods for his buildings. The twelfth century was the age of great towers, 'stone keeps . . . built as residences and not as strictly military structures' (pp. 72-3). In the latter half of the century, however, siege engines made necessary the raising in height of the enclosing walls, wherefore the lofty tower could be abandoned for the more comfortable courtyard quarters of the hall, etc. (pp. 69, 76 n). Yet Dover Castle 'shows combined the two features of the tower-keep and the towered curtain walls which ousted the great towers; in that case, curiously enough, both erected at the same time' (p. 48). More curious still, at Porchester the high curtains necessitated 'the raising of the keep' (p. 77). By the end of the thirteenth century 'practically no new castles were being founded', for one reason because 'the borders of Wales and Scotland had been secured . . . and no complete conquest of these countries was now particularly desired' (p. 87). Alas! it was just at this time that the desire for a conquest of Scotland took shape. In the following century 'the fashionable craze was Chivalry', and 'nothing would suit such marvellous persons as these fourteenth century lords and ladies but that they must live in castles' (p. 102). 'At Hurstmonceaux we can

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detect the last desperate effort ' in this line on the part of landowners ' who had been reading too much Malory ' (p. 108). Previously we had been told that it ' was built by someone who had done well out of Agincourt ' (p. 105). But Hurstmonceaux was begun about 1446, thirty years after that battle, and Malory's book was not finished till 1470 and not printed till 1485.

The truth is that Mr Braun has constructed a framework into which his material refuses to fit. To hold the scheme together it is knotted up with such expressions as ' somewhat anachronistic copies ' (p. 37), ' had a relapse ' (p. 46), ' consoling themselves with shell-keeps ' (p. 51), ' could not resist temptation ' (p. 56), ' a lingering desire for a great tower ' (p. 57), and so on. The suggestion is that the general treatment has been on the wrong lines. At the same time he does indicate factors—such as the parallel drawn between the castle in ' feudal society ' and the ' country house of the eighteenth century—the outward symbol of squirearchy ' (p. 101)—which could have been developed to better results. Much apparent fortification was but architectural design. And fortification itself was less logical than a scientific age would like to make out.

Apart from these general considerations Mr Braun supplies in his lively chapters a goodly amount of useful information for those who do not know. But he should have avoided references to ' triforium lighting '. The triforium was the ' blind-storey ' ; lighting came from the ' clear-storey ' above.

W. MACKAY MACKENZIE.

MEXICO FROM THE EARLIEST TIMES TO THE CONQUEST. By THOMAS GANN. *Lovat Dickson and Thompson*, 1936. pp. 206, and plates. 6s.

No book has been published in English giving the general public the latest ideas of specialists about the early history of Mexico since T. A. Joyce's learned volume on *Mexican Archaeology* (now unfortunately out of print), and Spinden's *Ancient Civilizations of Mexico*, which though short is replete with facts and observations. All therefore who are interested in such matters, and even militant Americanists, will applaud the happy enterprise of the publisher for including in his series about famous archaeological regions this excellent work of Dr Thomas Gann, lecturer in the archaeology of Central America at Liverpool University and leader of the British Museum's archaeological expedition to Pusilha in British Honduras. He is the author of several attractive works comprising an archaeologist's notes in Central America.

The book under review is a good summary of what ancient chroniclers and modern archaeologists have told us. It is quite up-to-date and if only for that would be welcomed by specialists. But we chiefly value it for its extreme clearness and moderation in the selection of details which however in no way

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hamper the progress of the narrative. Its main portion is devoted to the Aztecs. Being nearest to our own times and having been in direct and close contact with their conquerors, it is natural that it should be about them and their civilization that we have the fullest accounts. Dr Gann describes them with special care and thoroughness. On the other hand he does not fail to assign to each of the other peoples of Mexico the important role which belongs to them in a culture which is rapidly proving, from its remains, to have been one of the most remarkable in America and even in the world, since the time that our thirst for knowledge has been able to tear itself from the exclusive study of white civilizations.

The only criticism we have to make of a little book so rich in precise and serious observations, is that the illustrations, interesting though they are in themselves, are but a very inadequate complement of Dr Gann's necessarily brief descriptions.

H. LAVACHERY.

INDIES ADVENTURE : the Amazing Career of Afonso de Albuquerque, Captain-General and Governor of India (1509-1515). By ELAINE SANCEAU. *Blackie*, 1936. pp. XII, 308 with 11 plates. 12s 6d.

Historical biographers have done less than justice to Afonso de Albuquerque, who used princes as his pawns and spread himself across the map of Asia. This sympathetic study is the most extended survey that has hitherto appeared in English of the greatest of all the Portuguese heroes who served in India.

Little is known of his early life, and Miss Sanceau rapidly leads to the 'amazing career' of the years 1506-1515, investing her narrative with a richness of description in character, incident and background which is as charmingly vivid as historically accurate and indicative of her patient research.

Regardless of personal ambition, Albuquerque planned, fought, laboured and administered for nine years, to lay the foundations of a Portuguese Empire in the East. A consuming energy led him to attempt undertakings which his captains denounced as foolhardy and needless, but he never relinquished a project on which he had set his mind, and the difficulties with which he had to contend stimulated rather than discouraged him. Throughout the tenure of his Governorship he was harassed by intrigues engineered against him by his subordinates, and especially by the failure of the mother country to send him adequate support in arms and men. In 1512 he had less than 1,300 men to protect the fortresses on the Indian coast and at Malacca, and of these not 300 were fully armed; his vessels were old and rotting, and his flagship sank beneath him off Sumatra. And yet by 1515 he had secured to Portugal three of the four keys to the mastery of the trade-routes in Central Asia and the East, Malacca, Goa and Ormuz. All that remained was to close the Straits of

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Bab-el-Mandeb, and, with Aden in her hands, Portugal's supremacy would be complete. But King Manuel, fortunate but undiscerning, substituted Lopo Soares de Albergaria for the Governor, and the loyal veteran, with his life work taken from him, died at sea off Goa, broken-hearted.

Miss Sanceau reveals Albuquerque in all his many-sidedness, as commander-in-chief of the army, admiral of the fleet, chief magistrate and final court of appeal for all questions civil and military, head of the public works in charge of foreign affairs and every administrative department; courageous, just, generous towards his enemies, he advocated and pursued policies three hundred years in advance of his time, regulating mixed marriages, founding schools for the natives, granting religious freedom and abolishing suttee. He was intolerant only of disloyalty to the king and insubordination to himself. A hard taskmaster, but no slave-driver, he believed that if the work was to be done well he himself must supervise it. His men worked, and worked hard, when he was behind their backs. When he was gone, the system broke down, and the next seventy years saw the gradual decline of the Portuguese power in the East, the foundations of which he thought he had so securely laid.

The author does not claim to put forward 'any facts not already well-known to the historian', and she has confined herself almost exclusively to the original Portuguese sources, the *Letters* of Albuquerque, the *Commentaries* of his son Braz de Albuquerque, and the histories of Gasper Correa and Castanheda. But she has written an eminently readable book, and done a service to scholarship by reminding us of a field of investigation which is rich in material and as yet largely unexplored. The history of the Portuguese in the East during the 17th and 18th centuries has still to be written; research in the Lisbon archives would probably show that the economic rivalry on the West Coast of Africa during the latter half of the 15th century was more considerable than is generally supposed. It might help to make Portuguese expansion overseas seem less 'an inexplicable phenomenon upon the page of history'. S. GEORGE WEST.

GEORGICA: a journal of Georgian and Caucasian studies. *Published by* Stephen Austin & Sons Ltd. for the Georgian Historical Society, 74 Grosvenor St., London, W.1. No. 1, October 1935, pp. 136, 2 plates, 12s 6d. Nos. 2 and 3, October 1936, pp. 188, 36 plates, map of Georgia, 30s.

We extend a hearty welcome to the newly-formed Georgian Historical Society and its journal. The region covered by its activities is one of the world's key-positions, yet its archaeology, and especially that of the prehistoric periods, has still to be established upon a sound basis. For archaeologists it is practically a virgin field, and will remain so until attacked by modern scientific

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methods. Meanwhile a beginning has been made outside Georgia to interest the western world in a country that has much in common with Europe.

In the first number Sir E. Denison Ross, the President, defines the scope and objects of the society and laments the small number of Englishmen who have known the Georgian language, interesting if only because it 'cannot be associated with any of the well-known language-families of Europe and Asia'. Mr W. E. D. Allen, the Chairman of Council, writes on the 'Present State of Caucasian Studies'. The Archimandrite Peradze gives a short descriptive list of Georgian manuscripts in England, of which the largest collection is in the Bodleian. Mr A. Gugushvili, the Editor and one of the Hon. Secretaries, contributes a short obituary of the late Professor Nicholas Marr and makes a valiant attempt to interpret for us his (Prof. Marr's) Japhetic theory. He also contributes to each number an account of the Georgian alphabet. Mr J. F. Baddeley writes about the Holy Lance of Echmiadzin, of which the *Illustrated London News* or the *Sphere* published a photograph about four years ago.

The article which interested the present writer most was that (in the second part) on the Georgian Epic, 'The Man in the Panther's Skin', by Dr Titus Margvelashvili. He compares it with the Sumerian epic of Gilgamesh. We have always suspected that the latter has its roots in the hunting culture of the pre-Neolithic period; if so, it is the 'oldest story in the world'. The Georgian Epic was recorded by the poet Rustaveli before A.D. 1204, when, if the author's hypothesis is accepted, the tale had already achieved a life of over 4000 years. Naturally there are difficulties in accepting the hypothesis, but we are not qualified to discuss them. It is in the region covered by this Society, and in the adjacent lands of Persia and Iraq that we should expect to find archaeological evidence of the epoch-making transition from a hunting to an agricultural economy. There are one or two slips; Erech (Uruk-Warka), not Ur, was the 'home-town of Gilgamesh', and surely the tiger was never at home in Nubia? (p. 33).

Mr S. Kakabadze discusses the date of the building of the cathedral of Mtskheta, the old capital of Georgia, a few miles west of Tiflis, and concludes that it was built, or rather rebuilt, in approximately its present form 'roughly between the years 925-945', though additions were made at later dates.

O.G.S.C.

THE STONES OF ASSYRIA: the surviving Remains of Assyrian Sculpture, their Recovery and their original Positions. By C. J. GADD. *Chatto and Windus*, 1936. pp. xvii, 252 and appendix, 47 plates, 2 plans. £3 3s od.

A book like this comes very appropriately from one of the keepers of a museum which is so rich in Assyrian antiquities. In fact Mr Gadd has now

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given us in book form the result of his long and detailed studies, and the achievement does him great credit. It is a valuable instrument of research for all those who wish to study the great works of Assyrian sculpture, and will be useful also not only for nearly the whole range of these antiquities, but also for those archaeologists who wish to visualize for themselves the chief works of art attributable to a given reign or period. In the first part of the book Mr Gadd recapitulates the circumstances of discovery of the monuments, when they come from excavations not so well known as those of Layard—those for instance of Rassam, Loftus and Butcher. The second part is a critical catalogue of the principal collections; the author discusses certain attributions and compares different groups of monuments; he states their provenance and the dates when they were acquired by museums. To each monument is attached as complete a bibliography as possible. The illustrations consist of photographs of the monuments themselves or of drawings from the admirable series of Layard, Cooper, Hodder and Butcher, that have not been exhausted by the monuments of Nineveh. The book is a model of what a general catalogue should be, containing all those accurate details that are rightly expected of such a work, while the critical portion forms a history of the great Assyrian monuments of the first half of the first millennium before Christ.

G. CONTENAU.

RELIGIONS : the Journal of Transactions of the Society for Promoting the Study of Religions; edited for the Executive Committee by SIR E. DENISON Ross. No. 18, January 1937. (*Luzac, 46 Great Russell Street, W.C.1*). 60 pages. *Post free, 1s 2d.*

Some of the most readable work of the best scholars is buried in little-known publications like the present brochure. It is with the object of calling attention to it that this review is published. Only if it receives adequate support can such valuable work be published at all.

This number contains two long and valuable articles :—‘ New Light on early Palestinian religion (more texts from Ras Shamra) ’ by Theodor H. Gaster, and ‘ The Indus civilisation in relation to Indian religions ’, by Professor John Murphy. Some of the Ras Shamra texts are, in Dr Gaster’s opinion, the ‘ book of the words ’ of seasonal pantomimes, one at least of which ‘ may . . . have been caught up on to the ritual of the Yahweh cult in Israel ’ (p. 10). Ras Shamra brilliantly confirms an interpretation of early Mediterranean religion which was suggested long ago by Sir James Frazer, but by inference only. From the Ras Shamra Epic of Chereth and a study of patriarchal legends in the Bible Dr Gaster concludes that ‘ the Biblical narratives of the patriarchs are, to a large extent (though not wholly) duplicates of one another ’ (p. 15). The Terach of Ras Shamra is identified with Terah, the father of Abraham. ‘ Perhaps

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the most arresting of all the discoveries which accrue from the Ras Shamra texts is the fact that they reveal to us at long last the earliest species of that dramatic form which is best known from the classical tragedies of ancient Greece' (p. 28). This, too, had been suspected; 'but it was, at best, a product of inference and deduction'. Ras Shramra has provided the *libretto* of such ancestral pantomimes 'acted on the shores of the Mediterranean at about 1250 B.C.' (p. 29). This latter conclusion, Dr Gaster states, has been accepted and endorsed by Professor Gilbert Murray (p. 30).

Professor Murphy emphasizes the modern view that, when the Aryans invaded India about 1500 B.C., they had not developed beyond the stage of the self-sufficing village community; whereas the indigenous peoples they found there had developed civilized urban communities more than a thousand years before. That does not necessarily imply that the Aryans contributed nothing to the subsequent cross-fertilized culture; on the contrary that culture owed much to both elements. The Brahman 'was not an Aryan at all, but a priest of the native [Indian] race and religion who was taken into the households of the invading nobles . . . ' (p. 38). The people of the Indus civilization are represented today by the 'low caste' Dravidians, who will doubtless recover their confidence and self-respect when they realize that 'their ancestors were a powerful and cultured people more than a thousand years before the Aryan forefathers of the Brahmins and high castes—then a half-barbarous folk—invaded India' (pp. 45, 46). O.G.S.C.

ROOTS OF THE TREE. By CARLETON STANLEY. *Oxford University Press*, 1936. pp. 107. 5s.

The author of this small book is the President of Dalhousie University in Nova Scotia. He gives us five essays on the ancient world—on early Greek history, on Greek science, Thucydides, Lucretius and on Cretan art. Almost any cultured scholar might produce a book on such topics and we might be no better off. But there is in these essays a certain independence of outlook, a certain vigorous and refreshing originality and a marked firmness and clarity of language which stamps this book as something out of the ordinary. The first and the last essays, for the most part, cover known ground and have little but their freshness of statement to recommend them. But the others are, in effect, restatements of a case, revisions of accepted dogmas, written with force and persuasion. Of Greek science the author maintains that we cannot look on it as merely an anticipation or a germination of our modern advance. He quotes Liebig's definition of Science—'We first observe, we then try to generalise, finally we measure'—as the test to apply to the reality of Greek science. Here is

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its mathematical basis. Many antique civilizations knew how to observe and how to generalize, but it was the Greeks alone who expressed their generalizations *quantitatively*, as we do. In so far as they did that they founded Science and did what no other ancient people were able to do. But Greek science, which applied its knowledge far more than we suppose, was finally killed by Stoicism and religion. 'The introduction of an eastern religion', he says, ended the Greek adventures.

On Thucydides the author is at his best. He shows how the 'History' was a deliberate analysis of the elements of civilization, with the particular conclusion that only democracy is the mode of government fitted for a civilized condition. He refutes Cochrane's view that Thucydides was applying Greek scientific methods to history, and maintains that he was an artist rather than a scientist. Of Lucretius he says that owing to the general suppression of his speculations by other writers and the attacks of the religious, the text of the poem only arrived to influence the currents of thought in Europe when the outlook of Europeans had already been definitely shaped. He shows how Cicero, whom we know for certain to have been fully acquainted with the Lucretian philosophy and works, deliberately denied in public all such knowledge because, when Cicero became a public man of importance, Lucretius had become 'unrespectable', owing to the attacks of the religious-minded and conventional. Cicero thus was the type of English statesman 'from Selden to Balfour and Asquith'.

Altogether this is a notable and refreshing series of essays, illustrating an independent and vigorous mind. S.C.

LEKYTHOS : archäologische, sprachliche und religionsgeschichtliche Untersuchungen. By L. J. ELFERINK. Allard Pierson Stichting Bijdragen II, 1934. *pp.* 96, and *plates.* 4.90 *florins.*

This is the second publication of the Pierson Foundation. It consists, in the main, of a philological enquiry into the origin of the Greek names of vases, such as *lekythus*, *aryballos*, *alabastron*, *depas*, *skyphos*, *lagynos*, etc. All these names belong to the oldest stratum of language in Greece and are pre-Greek in form. As one might have expected, the newly arrived Greeks took over, with the usual place-names, names of domestic objects (such as *asaminthos*), among them being the names of shapes of domestic vessels. The author then draws from archaeological evidence to show that all these shapes existed in the Bronze Age. But he should have appealed to that part of the Bronze Age that precedes 2000 B.C. in Greece, if he wished to make his thesis water-tight. For that is the earliest date at which any archaeologist will admit the presence of Greek stock in Greece.

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It is a brief and interesting monograph, with many ruminations on philological themes and some excursions into mythology. These are developed in order to give some religious meaning to those particular vase-shapes which were reserved for tomb-furniture.

THE ISLANDS OF IRELAND. By THOMAS H. MASON. *Batsford*, 1936. pp. vii, 135, 160 plates and maps. 10s 6d net.

This book, we are informed in the preface, is the outcome of a lecture given by the author to the Royal Dublin Society some years ago, and for this reason it has in its easy style the excellent qualities of a good popular lecture and at the same time suffers from the limitations usual to such. For the non-specialist it could hardly be bettered as an introduction to the islands of Ireland; it will make many readers want to come to see these interesting places for themselves, which is probably the most useful function such a book could perform. On the other hand the specialist in, say, folk-culture or archaeology must not expect a work which he will find completely satisfying from his particular view-point. He will, however, find in it much miscellaneous information of which he may not have been aware, while specialist and general reader alike will be grateful for the illustrations.

Mr Mason has chosen an interesting subject—the islands around an island on the edge of the Atlantic are *a priori* likely to prove storehouses of much that has become obsolete in the main stream of European life. So Mr Mason has found them. His best description of island life is in his treatment of the Aran Islands, co. Galway, well known because of Robert Flaherty's film 'Man of Aran', but reading this account shows how much of Aran life the film omitted. The ornithologist will be most pleased with the chapter on the Saltee Islands, abounding with bird life so admirably photographed by the author and his sons. The photographs throughout are technically excellent but they are perhaps more happy in the matter of composition when portraying birds than when dealing with human figures.

The author frequently refers to the relaxation and peace he found during his numerous visits to Irish islands, which visits were spread over the greater part of his life-time and the obvious sincerity of his desire for the simpler things of life fitted him for the study of the island inhabitants because he could gain their friendship and their confidence. Against this, the lack of a knowledge of the Irish language (p. 71) is a handicap in districts where it is still the everyday language of the people. (Inishere, by the way, does not mean East Island, p. 53, but West Island, *Inis Thiar*, having been named in relation to the mainland).

Many side-lights on island life are given: boat-building, basket-making, poteen- (illicit whiskey) making, agriculture by primitive methods and with

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implements known to most only in the collections of folk-museums, fishing, the scenery and weather, the social life, marriage, etc. (one regrets that the author's being a teetotaler prevented him from attending a 'wake') and the economic background of hardships and emigration. Mr Mason speaks highly of the natural courtesy of the island-folk. The historic events are sketched in, the antiquities are described and the whole is enlivened by relevant anecdotes.

The author and publishers are to be congratulated on the photographs and their standard of reproduction and on the attractive format of the book. A reproduction of a Paul Henry painting forms the frontispiece, while even the dust cover is attractive with its striking seascape.

S.P.ÓR.

HOW WELL CAN WE KNOW THE ANCIENT NEAR EAST? By W. F.

ALBRIGHT. Presidential address delivered 15th April 1936. *Journal of the American Oriental Society*, vol. 56, pp. 121-44.

A few points in this illuminating address should be noted; no attempt can be made here to summarize it. A German classical professor, of extreme and unscientific views, has provided Professor Albright with a peg on which to hang a most readable and penetrating analysis of oriental research during the last hundred years. With the German professor we are not now concerned; it is remarkable that a country which has been in the van of progress in oriental excavation should also be responsible for such prodigies of unreason. Professor Albright rightly calls attention to the foundations laid by Schliemann, Petrie, Reisner, Koldewey and their pupils. It is doubtful, however, whether he is correct in claiming that 'European archaeology owes more to Near Eastern studies than the reverse' (p. 134). General Pitt-Rivers laid the foundations of scientific excavation in England in the 80's and 90's quite independently of Schliemann (whose methods, though marking a great advance, were not nearly so scientific) and of Petrie, whose problems were fundamentally different. Our modern school of excavators in Britain derives from Pitt-Rivers, largely through a collateral branch of Roman students, led by Haverfield. The fact that we (and North American) diggers deal with 'unexciting houses' is surely irrelevant when methods rather than finds are being discussed. And, when due credit has been given to Near Eastern excavators of every nationality, it remains true to say that 'Orientalists have seldom reached' the meticulous care with which westerners have treated their humble remains (p. 134).

Professor Albright does well to call attention to 'the value of the Ancient Orient for the student of cultural anthropology' (p. 139). That is still almost a virgin field. The time is nearly ripe for writing a book concerned with the same problems as Morgan's *Ancient Society* (1877) but upon an entirely new and far sounder basis of ascertained historical fact. There is also an immense

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field, equally virgin, in the anthropological study of existing peoples of the Near East—survivals of known and recorded ancient rites and customs, folk-lore, material culture. Of the value of oriental studies, so ably defended by Professor Albright, there can surely be no question, amongst impartial students.

Though perhaps somewhat irrelevant in this context, there is one problem that we hope to see tackled before long, that of the transition from a hunting (palaeolithic) to an agricultural (neolithic) economy. This almost certainly occurred in the Near East, and it was of course of decisive importance in the development of human society. Evidence might be found either in the top layers of a cave-deposit or right at the bottom of an ancient tell. At present the beginnings of riverine culture seem to have no roots.

But we must conclude by expressing appreciation of a thoroughly sound and valuable discourse. O.G.S.C.

ANCIENT ROME AS REVEALED BY RECENT DISCOVERIES. *By*
A. W. VAN BUREN. *Lovat Dickson*, 1936. *pp.* xvi, 200, 9 *plates*, 2 *plans*. 6s.

No one is better qualified than Dr Van Buren to write on the light which recent discoveries have thrown on ancient Rome. His long connexion with the American Academy has given him the opportunity to follow each discovery as it has been made, and the demands of his students keep constantly before him the need to discard technical jargon and describe things in simple language. This little book gives a wide survey of the discoveries made in and round Rome during the last ten years or so. Every subject that warrants a separate chapter is given one, and, since the author has aimed at mentioning everything of note, the chapters are numerous. One might regret in this connexion that, owing to the haphazard and isolated nature of the discoveries, it has not proved possible to knit all the varied topics together into a closer whole.

The book starts with an account of the climate of Rome in ancient times and of the geological structure of its soil, the importance of which for the development of the typically Roman art of building is rightly emphasized. Chapter 2 digresses from the main argument to mention the skull of an elephant of the Early Quaternary Period that was found under the ridge of the Velia and the skulls of Neandertal type found two miles north of Rome among the gravels of the river Arno. (When the author writes, of the Middle Quaternary Period, 'Even at so early a date Italy was exercising that function as a centre of attraction and development for the nations which has distinguished her throughout the ages of history', one may wonder if he has not been too indulgent towards the patriotic fervour of the Italian authority whose account he has used).

Chapter 5 (which might more suitably have come at the beginning, being

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the natural introduction to the main purpose of the book) describes the town-planning of modern Rome and the help which it has given to archaeology. The physical aspect of the semi-isolated hills that formed the nucleus of the primitive city is described in the last pages of this chapter, and this description must be closely connected with the account in chapter 3 of the growth of the city's defensive system, from the earthen rampart associated with the name of Servius Tullius to the ashlar-faced *agger* of the 4th century, and then to the brick-faced concrete circuit of the 3rd and subsequent centuries of our era.

Chapter 4 describes (unfortunately without a plan) the four Republican temples of the 'Argentina Zone', uncovered during the years 1926-28, and the two temples in the Bocca della Verità, long known to visitors, but recently revealed with added charm by the creation of a green space around them. Other temples are mentioned in succeeding chapters, and the descriptions are coloured throughout by a comprehensive work on Italian temples recently published by Van Buren's colleague, Lake.

There is an original account of the curvilinear niche in early imperial temples and of its bearing, on the one side, on the deities to which the temples were dedicated, and, on the other side, on the relations between the emperor and the Roman people.

The accounts of monuments of Augustus, the imperial Fora, and the inscriptions found in them, enhanced by the inclusion of Gismondi's plan, and the pages which describe the psychological basis of Roman inscriptions are especially suggestive. Tribute is paid to the acumen of the Pompeian epigraphist Matteo della Corte and to the fascinating results which followed from his intensive study of the half-illegible scrawls on some of the buildings of the capital.

The monuments bearing on the economic and domestic side of Roman life are described, and emphasis is rightly laid on the influence of Calza's excavations at Ostia, not only for their actual results in laying bare a city of the imperial epoch, but also for the repercussions which they have had in practically every field of Roman archaeology, and most notably in the sphere of domestic architecture.

The scheme of the book is ambitious. The classicist who knew Rome well before the recent excavations will find it invaluable, and, to the student of ancient life who goes to Italy on completing a university course or during vacations, it can be heartily recommended; for one of its most delightful features is the attempt made throughout to trace the psychological basis of particular groups of monuments and to link them with the general background of Roman thought. But the general reader, who knows little of Roman archaeology, will find the book difficult, and possibly will receive the impression of a long and in places rather disconnected list. The attempt, however, to fill a real gap amongst popular books on archaeology was certainly overdue.

R. C. CARRINGTON.

REVIEWS

A GAZETTEER OF ROMAN REMAINS IN EAST YORKSHIRE (Roman Malton and district Report no. 5). By MARY KITSON CLARK. *Yorkshire Archaeological Society, 10 Park Place, Leeds, 1935. pp. 1-142, and map. 21s.*

The work of the Roman Malton Committee is already well known to the readers of *ANTIQUITY*. It has extended its scope gradually from the Roman fort of Malton into the surrounding district, discovering potters' kilns at Crambeck, a pottery at Throlam, and a villa at Langton ; thus showing that careful fieldwork would greatly increase our knowledge of the area. The basis of such fieldwork is, however, a knowledge of available sites. A documented index of Roman remains in the district was therefore needed, and takes shape in this interesting book.

A comparison with the Ordnance Map of Roman Britain soon shows that the work was not unproductive. Known villas increase from 7 to 11 ; potteries are at least five times as many ; finds indicative of permanent settlement rise from 16 to 27, without including single burials. The very numerous records of coins and miscellaneous objects will serve as starting-points for new discoveries. From this point of view alone the work was well worth doing, and Miss Kitson Clark is to be congratulated upon the thoroughness with which she has carried out her task.

The district itself is an interesting one. It has hitherto been considered as a somewhat unproductive and backward area, in which a limited degree of civilization took root under the shadow of the Roman forts, but not elsewhere. During the first stages of the Malton Committee's work, it looked as if this estimate were likely to be confirmed. But as the view widened, it has become clear that this is not so. The list of remains here given enables us already to see the villas occupying the lower slopes all round the main massif of the Wolds ; while the villages are squeezed out on to the worse lands, either hill-tops where water is scarce, or marshes where it is too abundant. In other words, the prehistoric type of distribution continues, with a rising population compelling exploitation of the worse ground. Nothing would be more instructive than a further examination of some of these typical sites. To carry Dr Kirk's work at Costa Beck into the eastern marshes, or up on to the high ground, would be productive of most valuable results. Again, in view of the astonishing results of air-photography in the Fens, it would be of great interest to see what photographs of the eastern marshes would produce.

In its general conformation to a prehistoric distribution of the land-holdings, the district does in fact do little more than confirm a truth already apparent in other districts of Roman Britain. It may be noted, however, that the evidence for continuity is particularly good. In the villas, it has been shown that the

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Romanized houses, erected for the most part early in the second century, were imposed upon ditches of earlier enclosures, related to field-systems : in other words, the building of the villas marks the Romanization of an existing social order. Exactly the same is true of the marsh villages, where such sites as Atwick, Costa, Thornton Dale, Ulrome, Easington, Burstwick and the Leven Canal village, existed before Roman times, and continued to exist during the period. This impression of a native community undisturbed by the impact of Roman forces and absorbent of Roman civilization is a new one for northern Britain ; and it shows that the Parisi, as these folk were called, may have been as highly developed as many parts of the civil province. In dealing with them, we are essentially still outside the military zone.

Certain peculiarities, however, distinguish the area from others near at hand. Its principal town, *Petuaria*, has recently been explored by Messrs. Corder and Romans. Without trespassing upon their important results, it may be noted that it is an exceedingly small thirteen-acre community, quite unlike the standard pattern of cantonal capital imposed, for example, upon the neighbouring Brigantes at Isurium. Indeed, the Celtic name of the place, meaning 'the fourth', implies that it ruled only one of several *pagus*-divisions of the Parisi, though it evidently took pride of place. Thus, the Parisi, unlike neighbouring tribes, were allowed to retain their native organization, without the imposition of a spectacular centralization. The character of the towns harmonizes with the evidence from the countryside.

In the later history of the district, also, there is an individuality which should not escape notice. The evidence from the villas and signal-stations shows that, as the hinterland of York, the district continued to prosper and to receive protection for as long as any part of Roman Britain. But the protection originated from inside. It is most significant that the garrison of *Derventio*, the principal military centre of the land, usually identified with Malton, is a native levy, the *numerus supervenientium Petuerensium*. In other words, the land left to itself from the first by the Roman government retained its special identity until the end, even amid all the bureaucratic tendencies of the fourth century. Miss Kitson Clark's story ends at this point, but we cannot forbear from asking what happened next, and wondering how this highly individual region met the Saxon invasions ? It is obvious that her work is the starting-point for a regional study of the very greatest interest. Two things are now desirable, that the study of the region should be continued into the Saxon period, and that the study of the parallel Brigantian canton should be undertaken without delay. No one is in a better position than Miss Kitson Clark for the continuation of the work in either direction.

I. A. RICHMOND.

REVIEWS

MAP OF SOUTH WALES, showing the distribution of Long Barrows and Megaliths. Introduction by W. F. GRIMES. *Southampton: Ordnance Survey Office*, 1936. *pp.* 56 and map. 5s 6d on linen.

THE MEGALITHIC MONUMENTS OF WALES. By W. F. GRIMES. (From *Procs. Prehistoric Society*, 1936, *pp.* 106-139). *Cardiff: National Museum of Wales*, 1936, *pp.* 34, 2 plates, 31 figures. 1s.

These two studies are complementary to one another. The paper covers the whole of Wales, but the map deals with South Wales only, though a fellow for North Wales is promised. They give the results of the first complete survey of the megalithic monuments of Wales. The competence of the author is beyond question, and it is therefore only necessary to mention some of the more interesting points that the survey has revealed.

Upon the question of omitting doubtful sites Mr Grimes has proceeded with an austere severity that cannot fail to give confidence even if it disappoints expectations. Every site has been visited—of itself no mean achievement in a land of mountains—and it is perfectly safe to say that Mr Grimes is the only person who can speak from first-hand knowledge of all the monuments. The difficulty of omission does not arise with reference to natural features that have been promoted into megaliths by the aid of enthusiasm and imagination, but with reference to destroyed or mutilated monuments to which only a bare reference exists. Mr Grimes has omitted them all. Further research may rehabilitate some of them, but we can be certain that every monument shown on these maps has passed a critical scrutiny. There may be, and possibly are, more, but there cannot be less.

A tear may be dropped over the demise of the churchyard stone circle of Ysptytty Cynfin, but when it was found that the churchyard wall passed *under* the stones of the circle its omission from the list was inevitable. Its site aroused suspicion in any case because it occurs in a region that is otherwise devoid of megaliths.

A conclusion that may be surprising is that the most favoured sites are valley flanks and bottoms, below the natural tree level, and consequently sites that would require clearing before they could be used. Mr Grimes would call it a lowland culture, but lowland is rather a comparative term in a country like Wales. The 'lowland' of the Vale of Glamorgan is about 400 feet above sea-level on the average. Perhaps it would be more accurate to call it a culture of the foothills; it is at least certain that it was *not* a culture of the moorland.

Upon the distribution of the long barrows Mr Grimes advocates 'the theory of two groups having a cousinly rather than a direct relationship'. The details of this theory cannot be given here, but there is one aspect of distribution

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that strikes one in the face—the Cardigan blank. From the Teifi to the Mawddach there is no record of a megalith of any kind though the character of the country does not differ greatly from north Pembrokeshire on the south side of it, or Merioneth on the north. The reason for this large blank must be a matter of speculation, but it is very tempting to connect it with the disappearance of a large area of lowland into Cardigan Bay ; the lost cantref of Gwaelod of Welsh legend and of Peacock's romance. This hypothetical lowland was probably a shelf of glacial drift. The megaliths might have been erected upon it, in which case they would have disappeared with it, or it might have been forbidding in character and therefore avoided.

Upon the map are marked some fascinating-looking roads in the neighbourhood of the Presely Hills. Their significance is not apparent until one reads the introduction, and then the interest increases. The 'blue' stones at Stonehenge were proved by the late H. H. Thomas to have come from the Presely Hills and Mr Grimes (happily forgetting for a moment his native caution) has indicated ancient routes over which they *may* have travelled, upon the most probable hypothesis that they were transported by land from the quarry to a port of embarkation and thence for the greater part of the remaining distance by sea. Some of our roads may be beyond comparison the most ancient things that are still in use.

Finally it should be mentioned that the introduction to the map contains a complete schedule of all the sites delineated upon it with a note of the chief literary references to each monument.

H. J. RANDALL.

